

*we won*

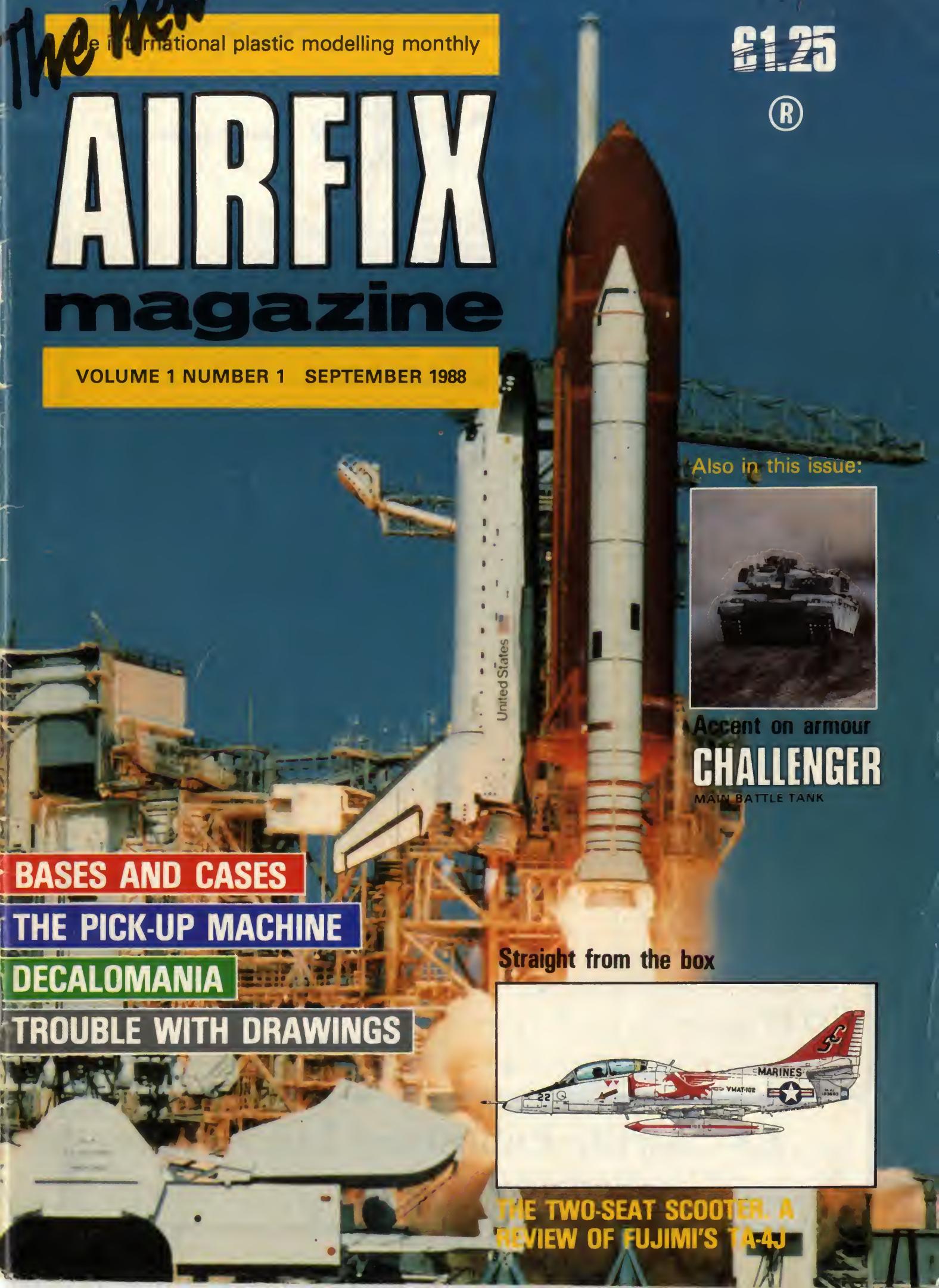
The international plastic modelling monthly

£1.25

®

# AIRFIX magazine

VOLUME 1 NUMBER 1 SEPTEMBER 1988



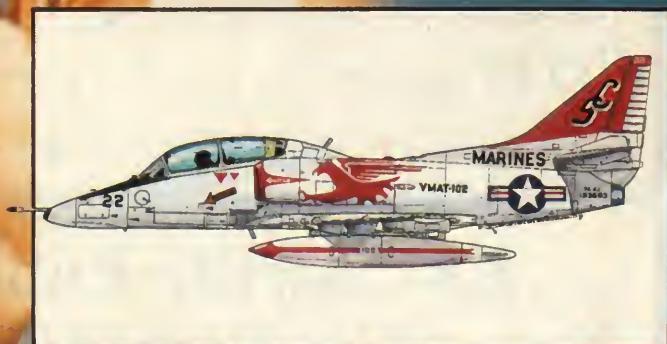
**BASES AND CASES**

**THE PICK-UP MACHINE**

**DECALOMANIA**

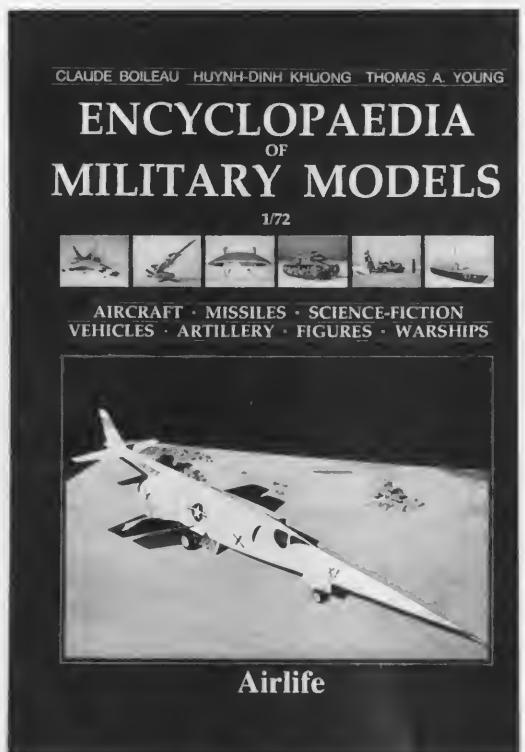
**TROUBLE WITH DRAWINGS**

**Straight from the box**



**THE TWO-SEAT SCOOTER. A  
REVIEW OF FUJIMI'S TA-4J**

# Airlife



## Encyclopaedia of Military Models

The definitive reference book for modellers containing

- A complete listing of 5,600 1/72 models from 1935 to the present day
- Names of 338 model manufacturers worldwide with countries or origin
- 61 Colour photographs of professionally assembled models
- Colour photographs showing 500 boxtops.

260 x 190mm, 200 pages, 121 Colour photographs, complete listing of 1/72 plastic models

Case Bound 185310 0196 £16.95  
Paper Bound 185310 034X £11.95



## Colors & Markings Series

Precise and accurate information on specific military aircraft. Each volume features

- 8 pages in full colour
- 5 full view scale drawings
- Kit reviews & detail listings
- Historical and development summaries

Price £9.95 per volume

Special editions are 80 pages in length

Price £11.95 per volume

£7.95 per volume

Available from good bookshops or direct from the publisher



Airlife Publishing Ltd.,



7 St. John's Hill, Shrewsbury, SY1 1JE  
Telephone: (0743) 235651 Telex: 35161 HOGROB G Fax: (0743) 232944



A Skyhawk crew preparing to launch on a training mission.

## LIFTOFF, WE HAVE LIFTOFF

AT the time of writing the space shuttle 'Discovery' and the new *Airfix Magazine* share the launch date of 24 August. Both the old versions of the magazine and the spacecraft had their problems and by applying a considerable effort NASA and the editorial staff of *Airfix* hope to have rectified any faults that may have been present in each of our individual past projects. Both of us ceased operations at approximately the same time and both of us have scheduled our respective liftoffs on the same day. We sincerely wish NASA the best of luck and hope that all of our own efforts here at *Airfix Magazine* will direct our circulation figures in the same general direction as the designed course of all spacecraft.

Editorially I would like to re-establish our new publication as the leader in the field. In the past *Airfix Magazine* was indeed at the top of the heap with a circulation of over 100,000 copies per month. During these halcyon days for the magazine the modelling hobby itself went through a bad patch. The magazine was suffering from a high degree of complacency and did not survive the doldrums of the hobby. The plastic modelling hobby is now receiving a new brisk wind from the east and we are setting off on a new course to refresh your interest in the manifold aspects of this enjoyable pastime. The hobby is presently experiencing a genuine renaissance and it is our duty to spread the word.

The plastic modeller has never had it better. The range and scope of new products is dazzling. The quality of new kits is striving toward a standard that approaches excellence and in most cases achieves it. The variety of cottage industries that are springing up present us with a mind boggling choice of tools and materials to enable modellers of all skill levels to construct truly unique models. We are blessed with the added advantages of the introduction of 'High Tech' to our work areas. The hobby has changed considerably since the last issue of the old *Airfix Magazine* and we are well aware of this fact. It shall be our stated policy now and in all future issues to introduce the neophyte hobbyist to the basic skills and techniques that will permit him to construct a thing of beauty. We also hope to assist the average modeller to become above average.

We will make every effort to display as many of the new products available that we can fit into our pages and tell you where to obtain them in turn saving you the legwork. In our reviews if a specific problem in a new product turns up we won't winge about it, we'll simply show you how to solve it. The name of the game is enjoyment. We at *Airfix Magazine* enjoy the construction and painting of plastic models and treasure seeing the results of our efforts as much as you. We are modellers not talkers.

'Roger Houston, Space Shuttle Airfix passing 20,000 and accelerating to mach 2.0, all systems GO!'



## Detail & Scale Series

Each volume profiles an individual aircraft, is 72 pages in length containing

- 8 pages in full colour
- 5 full view scale drawings
- Kit reviews & detail listings
- Historical and development summaries

£7.95 per volume

## Contents

|   |    |
|---|----|
| Straight from the box: Building the Fujimi 1:72 Skyhawk Trainer | 4  |
| The trouble with drawings                                       | 8  |
| A primer on painting model cars: By Franco Ferroni              | 12 |
| Ferrari's fantastic F40: By Franco Ferroni                      | 13 |
| Decalomania:  | 17 |
| Accent on armour: By Phillip Greenwood                          | 18 |
| Kitography: Space shuttle kit catalogue                         | 22 |
| Kit comment: Reviews by <i>Airfix Magazine</i> staff            | 24 |
| Bases and cases: By Bruce Dennis                                | 30 |
| The 'pick up' machine: By Richard Parker                        | 34 |
| Back to basics: By Alan W. Hall                                 | 36 |

SEPTEMBER 1988

# AIRFIX magazine

VOLUME 1 NUMBER 1

SEPTEMBER 1988

Published monthly by Alan W. Hall (Publications) Limited, 226 High Street, Berkhamsted, Hertfordshire HP4 1AD.

Editorial office: 226 High Street, Berkhamsted, Herts HP4 1AD. Telephone: (04427) 74682-3.

Advertisement and sales office: 226 High Street, Berkhamsted, Herts HP4 1AD. Telephone: (04427) 74682-3.

Printed in England by Thamesmouth Printing Group plc Burnt Mills Industrial Estate, Basildon, Essex SS13 1EB

*Airfix Magazine* is a registered Trade Mark of Humbrol Ltd.

## EDITORIAL STAFF

Managing editor: Alan W. Hall

Editor: James P. Wood

Production: Reg Baram Ivor Minchinton

Advertisement manager: John Haslam

## SUBSCRIPTION RATES

UK £15.00. Europe and the rest of the world except the US and Canada £20.40. US \$40.00 and Canada \$48.00. Copies will be dispatched by printed paper rate surface mail unless specifically requested. Airmail rates on application. Payment from overseas with the exception of the US and Canada should be made by International Money Order, a bankers draft on the UK branch of the subscriber's own bank or by Giro credit. Giro credit No. 233 0253. North American subscribers may pay direct by cheque drawn on their own banks. Orders should be sent with remittance to Subscription Department, *Airfix Magazine*, 226 High Street, Berkhamsted, Herts HP4 1AD, England. Cheques and money orders should be made payable to Alan W. Hall (Publications) Ltd.

*Airfix Magazine* is sold through the news distribution trade subject to the condition that no material written or pictorial is copied from either editorial or advertising pages without the written consent of the publishers. The opinions expressed by authors and reviewers are their own and may not reflect those of the publishers. Author's manuscripts and photographer's pictures where not directly commissioned are welcomed but on the understanding that these may not be returned unless adequate postage is provided. All readers' letters requiring an answer must be accompanied by a stamped addressed envelope.

Distributed to the news trade by SM Magazine Distribution Ltd, 6 Leigham Court Road, Streatham, London SW12 2PG. Telephone: 01-677 8111. North American hobby shop distribution through Bill Dean Books Ltd, 166-41 Powells Cove Boulevard, Whitestone, New York 11357, USA. Telephone: (212) 767 6632.

## STRAIGHT FROM THE BOX



A TA-4J over the Sierra Nevada range in Northern California. (J.S. Wood)

# THE TWO-SEAT SCOOTER

James P. Wood describes the TA-4J kit by Fujimi

The McDonnell-Douglas Skyhawk, or Scooter as it is known affectionately by the naval aviators that fly it, has been in service with the US Navy since 1956. The two-seater versions were developed from the A-4E version as the TA-4E which first flew in 1965. It had a 28 inch section added to the fuselage to accommodate the extra seat and flight controls and retained most of the single seaters avionics. During its production it was redesignated as the TA-4F and a total of 239 of this version were produced. A further 292 two-seaters were produced for advanced training duties as the TA-4J and these differed from the 'F' version in that they lacked the sophisticated navigation and attack systems that were not required for the training role. The TA-4 still remains in US Navy and Marine service until this day and is scheduled to continue until well into the 1990's. The training version will be gradually replaced by the McDonnell-Douglas T-45 Seahawk, which is a licence built and navalised BAE Hawk. For a more comprehensive history of the Skyhawk, refer to our sister publication *Scale Aircraft Modelling* Volume 10, Number 2.

The Fujimi 1:72 scale TA-4J/F kit which was released earlier this year is the subject of this article and it is representative of the current 'state of the art' in plastic models. The kit con-

tains no less than 94 white and clear crisply moulded plastic parts and excellent waterslide transfers for four different markings are included. The kit itself is another of those remarkably well engineered products from Fujimi that take all the sweat

and guesswork out of scale modelling that we have become so accustomed to. The now tried and true routine of taking a basic prototype model and designing a whole range of variants marketed in the variety of sub-types in which it was originally manufactured has made life for us modellers a dream come true. No more balsa wood and talcum powder filler to mess with, all the research and headaches are assumed by the people who produce the kits. They cost a bit more but are worth every penny of

the added price. The construction of this little gem is simple and straightforward and by following the concise and easy to understand instruction sheet you should have no problems achieving a satisfactory result. The suggestions that follow will help the less experienced modeller avoid any traps that might naturally occur to anyone with limited abilities. The steps are numbered to coincide with those on the kits instruction sheet.

A Marine TA-4F in a revetment at Ton San Nhut airfield, Saigon after a diversionary landing. The aircraft suffered some hits from ground fire and the canopy is missing.



SEPTEMBER 1988

## TA-4J Skyhawk camouflage and markings

DRAWINGS BY JAMES P. WOOD



SEPTEMBER 1988

AIRFIX MAGAZINE — PAGE 5



### Stage 1.

This stage is broken down into 1A and 1B which are the assembly of the assembly of the two cockpits. I painted the two assemblies a matt medium grey colour and left these aside to dry. It would be a good idea, while you have the tin already open and the paint brush in hand, to also paint the inside of parts 22 and 23 and set them aside to be ready for the next step. When the two cockpits were dry, I painted the following details: the seat cushions a matt light olive green to represent the fabric and the top of the control column a matt black. After the seat cushions had dried, I then painted some matt dark green lines on the seats and shoulder harnesses. I also added a minuscule drop of silver to the ends of all these straps to stimulate the metal connection hardware. The transfer sheet contains six parts for the instrument and side panels which I located after having first trimmed them with a pair of scissors to fit the plastic parts exactly. The clear film surrounding the decal, if permitted to remain on the decal, would make it extremely difficult to apply. When all of the above is completed, it provides you with a miniature cockpit that will look quite good with the canopy either opened or closed.

### Stage 2.

This step should be started only after the paint is completely dry. Install the two cockpits, I used super-glue, and the nose wheel well to one fuselage side only after scraping any surplus paint off the surfaces to which the glue is to be applied. Although this model will sit on its nosewheel without any added weight, I always add a little plasticene and lead to insure that a jacked shelf won't leave all my models sitting on their tails. When all of this has been completed give the two forward fuselage halves together at this point.

### Stage 3.

First paint the compressor blades a metallic colour, I used Humbrol steel, and then glue parts 67 and 68 to the inside of the circle around the compressor. I feel that the inclusion of the exhaust pipe at this stage is a bit premature though it is advisable to paint it a dark metallic colour at this time. To install the painted exhaust at this stage would be to permit the risk of getting the basic airframe colour on it and therefore require repainting at a later stage. Glue the compressor assembly to one side of the aft fuselage and then glue the two halves together. Don't forget to remove the little pointed ECM (Electronic Counter Measure) antenna from the final assembly.



### Stage 4.

This stage is the gathering together of the major sub-assemblies and while it is not particularly difficult, it is critical. It is at this point that you may well wish that Fujimi were a trifle less imaginative in their products. A review of an earlier version of this kit printed in *Scale Aircraft Modelling* criticised the kit for possessing an unsatisfactory fit. I disagree with this contention, however, it is imperative to point out that extreme care must be exercised during this stage to insure that all goes well.

Take note of the two additional boxes drawn on the instructions that point out the options that are available at this juncture. The smaller of the two shows you that if you want to include part 42 later in the assembly, you must drill a tiny hole in the inside of the lower wing half. The other box gives you the opportunity to provide your Skyhawk with the option of displaying the wing flaps in the lowered position. Skyhawks are often seen on the tarmac with their flaps fully down though not always, so the choice is yours. Should you decide to take the option, simply score the flap on both sides of the lower wing half with a sharp craft knife until it is separated from the trailing edge. Take great care when applying your knife to the rear portion of the under-carriage fairing. The flaps will require a further trimming to fit when you install them later in Stage 7. It is a good idea to paint the severed flaps at this time so as to give them adequate time to dry before their installation. Paint the inside surface red and the outside white.

To begin the assembly of these three sub-assemblies, decide which under wing stores that you want to include and drill the necessary holes through the inside of the lower wing half. Glue the two upper wing halves to the lower and set aside to dry. When dry, glue the aft fuselage half to the wing assembly. This next part is where you must be most careful. With the greatest patience, you must now add the forward fuselage to the other two assemblies. If you take your time and insure the correct alignment by tiny adjustments to the three parts while the adhesive is drying, it should be a 'no sweat' proposition. I found the kit's engineering to be superb and it required absolutely no filler. Now that your model is beginning to look less like a mere pile of small parts you must take the trouble to handle it very gently so as not to break off the tiny leading edge flap rails that are at this time precariously protruding from the wing.



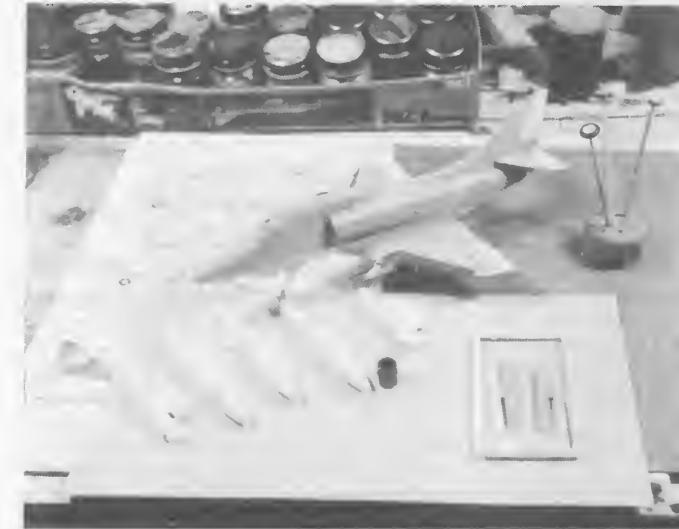
### Stage 5.

Make up your mind whether to show off the cockpit interior or not and choose either the open or closed canopy option as two canopies are included. Paint the glare shield over the instrument panel matt black and when dry, add the clear gunsight reflector (part 120). Add the intake assemblies, the canopy fairing, the fin fairing and the tailplanes.



### Stage 6.

You have several options available during this stage and we shall consider them one by one. The speed brakes on the aft fuselage may be either shown open or closed. This is a tricky one for the beginner and if you don't have a lot of modelling experience you should probably glue them in the closed position. This will save you grief later when applying the national insignia decals which have to be cut to fit over the brakes. If it is decided to show them in the opened position, remember to paint the inside of the brakes and the brake wells red. The actuators (parts 54) should be painted an aluminium colour. The inclusion of the two 20mm cannon is also optional. The drawings on the instruction sheet indicate that these aircraft did not have the cannons installed though that may be an oversight. These two seat Skyhawks appeared throughout their service careers with or without this armament depending on the needs of the unit assignment at the time. Check any contemporary photographs to confirm your choice for accuracy or simply do what you please. The chances are that for any given aircraft you will be correct for one point in that plane's career. The instructions show the addition of the leading edge flaps at this time but I saved that for later as to glue them into place now would complicate the painting process.



### Stage 7.

I have found by past experience that if you save the addition of the undercarriage legs for the last few minutes of an evening's work, it will give those fragile little beauties sufficient time to dry before you resume construction the following day. I also do not secure the tyres and wheels into place until after the model is completely painted. This diversion from the traditional method will help prevent the inadvertent painting of the wheels in the colour of the airframe. Place the wheels on a cocktail stick after painting the basic matt white and paint the tyres a very dark matt grey. This always gives a more realistic appearance than the usual matt black. Add all the various parts as shown on the drawing but save the addition of the wingflaps until you've completed the painting.

### Stage 8.

This is the final assembly time and I'll just bet that you've anticipated me and already glued all those drop tanks, rocket pods, and pylons together. If not, then do so now. It is usually a reasonable idea that when reviewing the instruction sheet before starting your model, to make some choices as to exactly how you desire your model to be displayed. The choice of external stores is up to you but Fujimi offer the centre line drop-tank, two underwing drop-tanks, and two rocket pods. When the final decision has been made and the things-under-wings have been assembled and painted, save their inclusion until after you have completed the painting and decaling of your model.

### Stage 9.

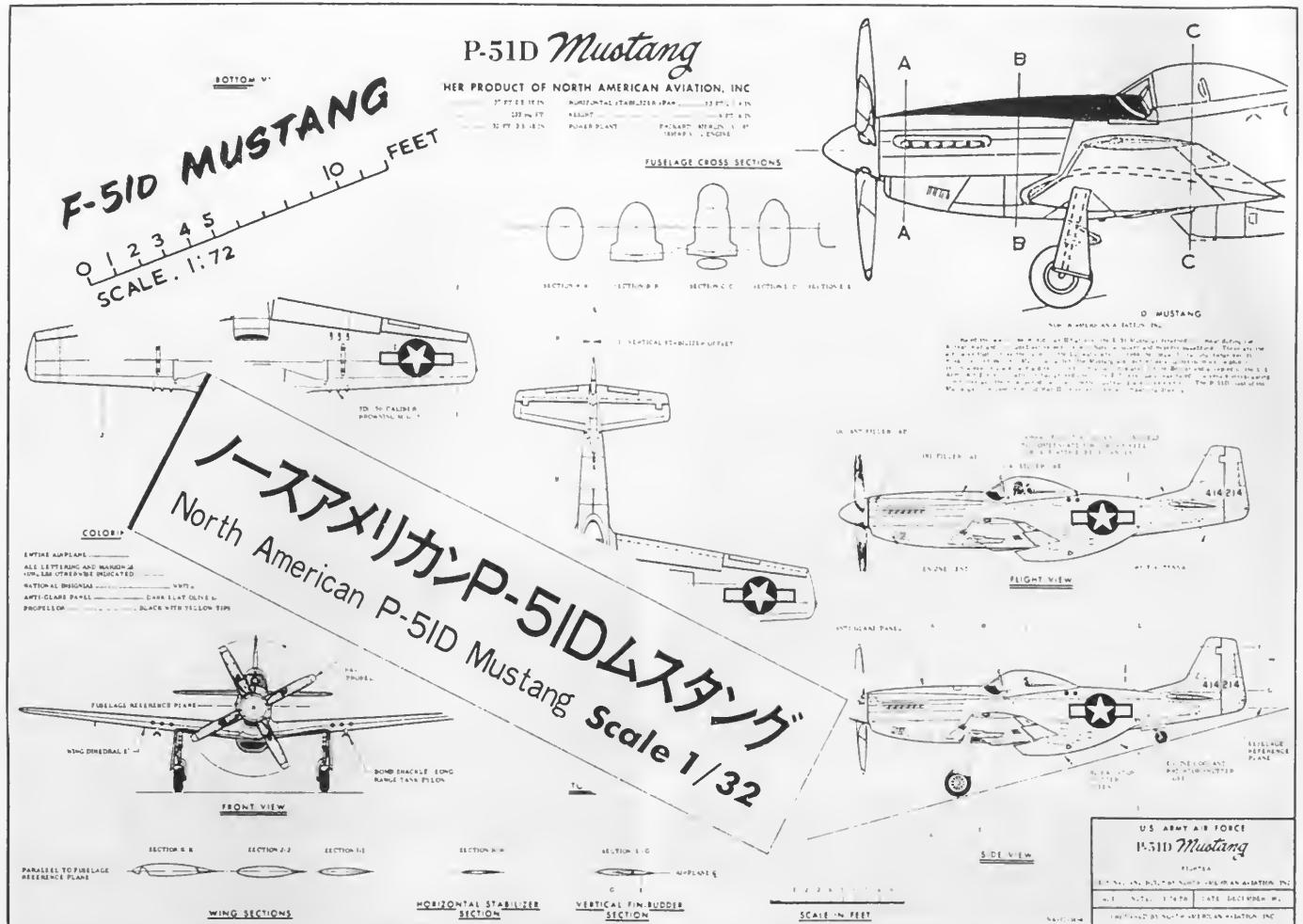
While there is no stage 9 on the instructions, there is a marking and painting section and this step is included to assist you in that procedure. There are four very colourful choices included on the decal sheet though you can safely discount the Israeli option. In order to accurately represent this TA-4H version you must possess the necessary skills to scratch-build the tailpipe extension shown on the drawing. This is outside the scope of the article so you must choose one of the other three schemes. The first two are the easiest as they require only a basic overall white. I have found that Humbrol satin white 130 is the best paint for this use. The comprehensive decal sheet provides all of the other markings required. The Japanese have made giant strides in the field of decals recently and this sheet is no exception. These two TA-4Js are not only among my very favourite of all time but may be the two most colourful operational warplanes to ever see service.

After your final choice between these two, paint the whole aircraft white and set aside to dry for at least 48 hours, longer if possible. When completely dry, the satin finish afforded by the very fine Humbrol 130 paint is an excellent surface on which to apply the decals. Remember all the parts that I recommended to be set aside? Well, it is now time to add them to the model providing you have permitted the decals to dry. The leading edges of the wings, the undersides of the leading edge flaps, and the inside of the speed brake area must have first been painted red. Also add the tailpipe at this time. Add the wheels and finally the underwing stores of your choice. Do not forget the white '500' decals which are applied to the inside of the wing flaps. A nice finishing touch is to paint the tail-hook with black stripes as shown on the box art.

If you should have decided to do the USMC TA-4F of H&MS-12, the painting is only slightly more complicated as it requires the upper surfaces to be coloured Light Gull Grey after the under surface white has dried.

The final finish, whether matt, satin, or gloss should be applied only when the decals have thoroughly dried. US Navy and Marine aircraft are for the most part very well looked after and tend to appear in a more or less semi-gloss state. When they first arrive on the flightline from the paint shop they are of course more likely to be in a slightly more glossy state. This also applies to aircraft which are specially waxed and polished for the use of higher ranking officers. These aircraft are those that often have the 'Double Nuts' or '00' numbers applied. When the more utilised service types have accumulated a lot of flight time and are exposed to the elements in addition to the rigours of high speed flight, they tend to become gradually more matt in finish. Paint oxidation alone accounts for most of this deterioration of finish. In the end, the choice is yours and practically any type of finish you choose would be 'correct'. Humbrol offer a variety of varnishes for you to apply over your completed model to obtain whatever degree of reflective surface that you desire.





# THE TROUBLE WITH DRAWINGS...

BY JAMES P. WOOD

SCALE drawings are a thing of beauty to anyone who has more than a passing interest in modelling. Aside from the intrinsic aesthetics of the crisp line work and carefully crafted lettering and notes they transmit the image of their selected subject in an orderly and scientific fashion. It is usually obvious to the observer that the choice of the subject of the drawing was dear to the draughtsman and the final work no less than a labour of love. The operative word in the last sentence is 'usually'. This article will deal with the origin of those wonderful general arrangement (GA) drawings that provide modellers with the single most important basic reference to aid us in completing an accurate replica of the aircraft, ship, or vehicle of our choice.

It has been said that plagiarism is copying one person's work and research is copying a lot of people's work. As glib as this may appear to be it has its root firmly planted in truth. Where does a draughtsman start his beloved drawing? Where does his research begin? Having had the background of being employed as a draughtsman in my distant youth I believe I can draw on some significant personal experience to give some insight into these questions. The hobbyist draughtsman may or may not be a professional as well. If he just happens to earn his living on the drawing board he will be aware of the potential pitfalls of research and

carefully organise and collate the data available to him before he puts pencil to paper. If not a professional he will naturally fall prey to a myriad of traps that have been set quite unknowingly by the printed word and illustrations which he has gathered to begin his opus. Initially a brief check of printed dimensions may turn up conflicting numbers. The fact that there may seem to be some sort of consensus is not at all reassuring as past researchers may all have been simply copying and therefore perpetuating false data. Some of the world's most used reference works are notorious for containing incorrect information. The best way to discover whether a printed dimension is indeed correct is to take tape measure in hand and apply it to the subject to be undertaken. Of course this implies that one has access to the full size prototype in the first place. As this is not always possible or even practical (I'll take Boeing's word for the printed dimensions of the 747!) the next best bet is to query the manufacturer itself.

After making the final decision regarding the correct size of the subject of the drawing, the next step is to determine the proper shape from as many views as necessary and to determine cross sections. If one has the manufacturer's drawing available one has a mixed blessing. As GA drawings go, the manufacturer's drawings are just that, general.

While working for a US aircraft manufacturer quite a few years back I became privy to a bit of information that any aspiring pro-

ducer of GA drawings might file away to aid his healthy scepticism. That is that the neat little three views that one may generously receive from any public relations department of a large concern that produces full size aircraft are actually drawn by personnel in that very same department. They are artists and most often not draughtsmen or engineers and therefore said drawings should be immediately suspect regarding their absolute accuracy. As most periodicals publish either direct copies or hastily redrawn examples of the drawings supplied by the manufacturers they are also in many cases guilty of perpetuating misinformation.

The next step in casting flawed information in steel occurs when the authors of reference books more intent on accurate text and usually unequipped to assess drawing accuracy supply their publishers with pitiful reproductions of some young commercial artist's impression of a given prototype.

There are also other potential errors that occur in manufacturers' drawings such as security considerations imposed by concerned government agencies. Random size and shape of radomes is the bugaboo that immediately springs to mind. These are often deliberately drawn inaccurately to mislead the 'enemy' as to the range and power of the radar on prototypes which can be readily determined from scale drawings.

The draughtsman's last resort to accurate basic reference is photographs and unless these are actually taken by the draughtsman

himself with appropriate views and scales included he will not always be able to obtain suitable or sufficient quantities to do his subject justice. It is at this point in the process that guesswork tends to creep into the drawing board. It should be now painfully obvious to the reader that truly 100 per cent accurate GA drawings are a relative rarity.

But do not despair, there are dedicated people in the modelling world concerned with the same things with which all modellers are equally concerned and accurate drawings do exist. However it must be said that the final judgement has to be based on a personal opinion and therein lies the problem. A modeller has to base his opinion on experience as do the manufacturers of kits. The name on the drawing will finally be the best assurance of that specific drawing's ultimate accuracy. An excellent example of a reliable source of extremely accurate drawings conscientiously executed are those of the late Paul Matt in his personally published 'Historical Aviation Album' series. Poor examples are legion and are far too numerous to list in this brief article.

When economic considerations or the genuine lack of time or other resource, not to mention talent, rear their ugly heads the drawing will ultimately suffer as will the kit or model that is based on it. As an illustration I have chosen a well-known shape to present the argument that any given model or kit is only as good as the drawing from which it was made. The North American P-51D Mustang is an image that is familiar to almost all modellers young and old. It is a reasonably simple shape though not without a few of its own individual complexities that have eluded many a draughtsman past and present. One can almost forgive someone for missing the essence of the classic beauty of the form of the Spitfire's elliptical wing and complicated fillets but certainly not the angular simplicity which was designed directly into the Mustang.

I shall present my case in the shape of the mini-history of drawings of the Mustang that have appeared over the past 40 years and sketches of the sometimes apalling appearance of the kits that have been designed from these same drawings.

It is not my intention to disparage the efforts of any kit manufacturer as the process of producing an injection moulded kit is extremely complicated and expensive. It involves many people and separate departments often in different parts of the world creating communication difficulties that we can only wonder about. In the end, the creation of a new plastic kit always benefits the hobby as it will inevitably stimulate the interest of all of us one way or another.

The Airfix 1:72nd P-51D/K which seems to be based on their 1:24th scale super kit of the same aircraft. It has some problems but is unmistakably a 'Mustang'.

The Heller 1:72nd P-51 was obviously derived from the drawings in a 1972 issue of *Aero-modeller*. This kit offers the most options for the enthusiast as it can be made with or without the fin fillet.

Matchbox's P-51 is the best value for money and was the first of the truly accurate models of the 'Mustang'. It is basic and simple and a good choice for the beginner.

The Hasegawa P-51 was released on the leading edge of the latest generation of kits therefore seems to be the most accurate. It is a thing of beauty in 1:72nd scale.

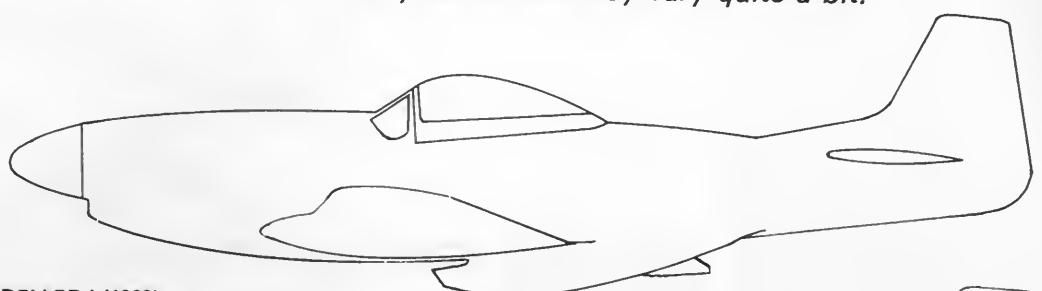
Below: the four contenders, wing tip to wing tip without benefit of primer point. Which one is which?



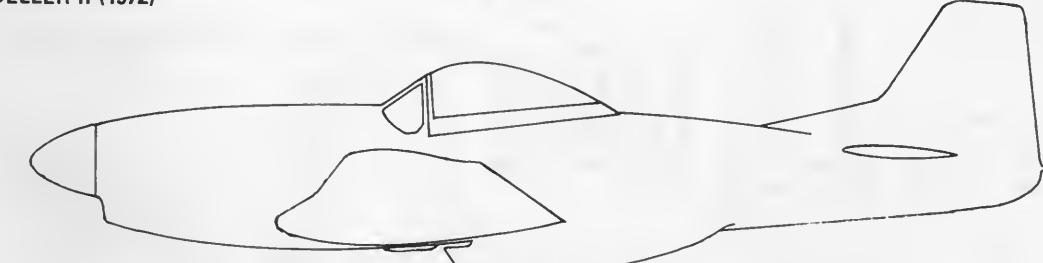
## THE DRAWINGS

*These are tracings of the Mustang drawings that have appeared over the past 44 years. As you can see they vary quite a bit.*

AEROMODELLER I (1962)



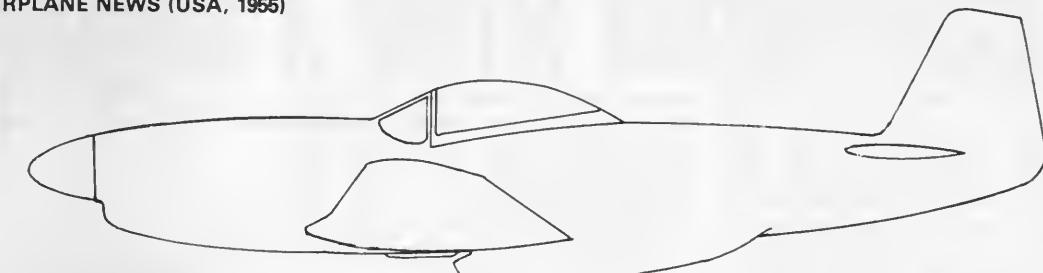
AEROMODELLER II (1972)



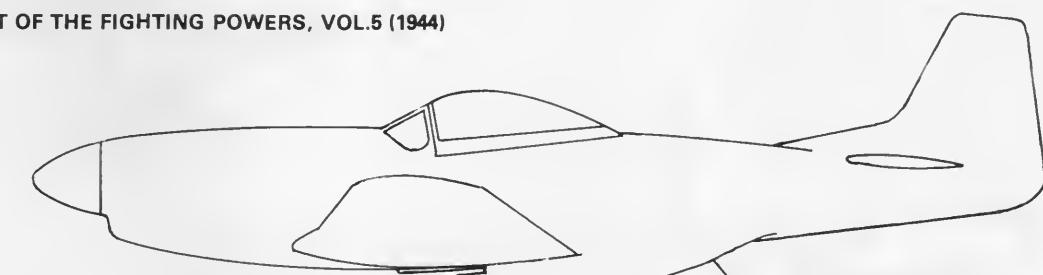
MODEL AIRPLANE NEWS (USA, 1955)



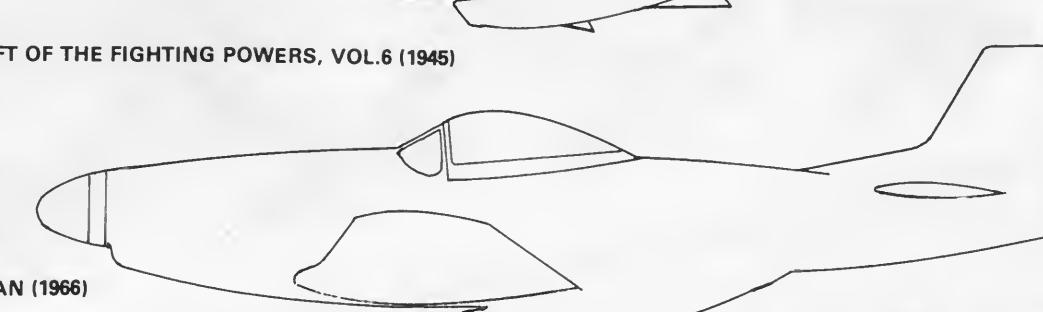
AIRCRAFT OF THE FIGHTING POWERS, VOL.5 (1944)



AIRCRAFT OF THE FIGHTING POWERS, VOL.6 (1945)



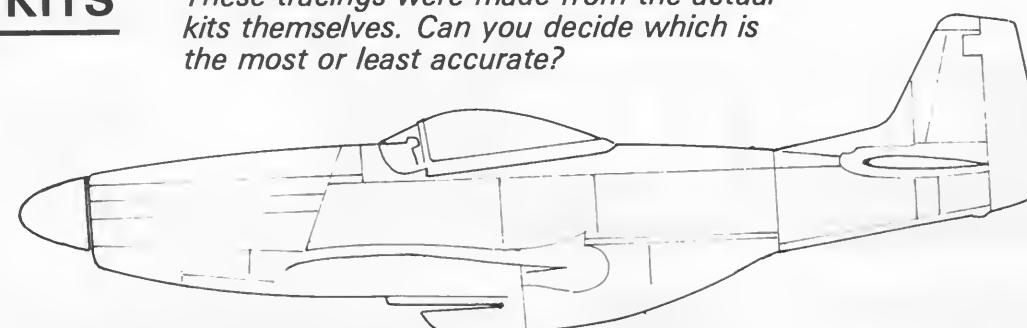
KO-KU FAN (1966)



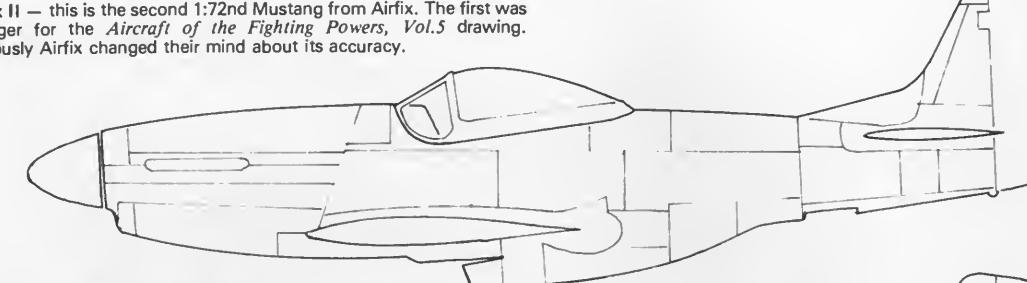
SEPTEMBER 1988

## THE KITS

*These tracings were made from the actual kits themselves. Can you decide which is the most or least accurate?*



Airfix II — this is the second 1:72nd Mustang from Airfix. The first was a ringer for the *Aircraft of the Fighting Powers, Vol.5* drawing. Obviously Airfix changed their mind about its accuracy.



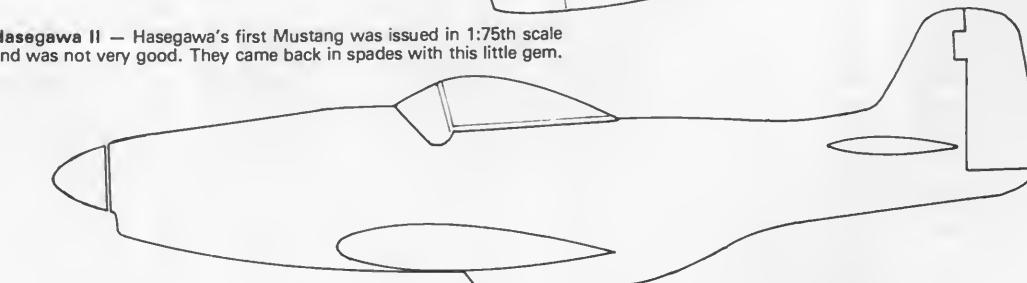
Heller — the Heller kit is still available in some hobby shops and is quite good, apart from a rather thick propeller.



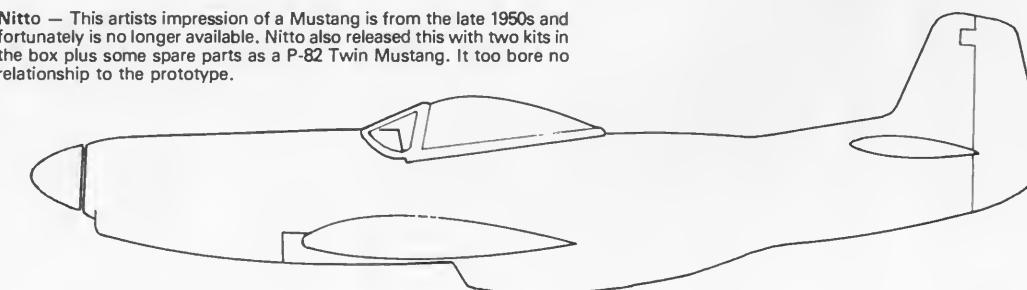
Matchbox — this kit was the first of the recent Mustang issues and was a godsend to the modeller. It is basically accurate but fairly sparsely detailed.



Hasegawa II — Hasegawa's first Mustang was issued in 1:75th scale and was not very good. They came back in spades with this little gem.



Nitto — This artist's impression of a Mustang is from the late 1950s and fortunately is no longer available. Nitto also released this with two kits in the box plus some spare parts as a P-82 Twin Mustang. It too bore no relationship to the prototype.



Revell — this rather fanciful effort is still a good seller. It was released in the 1960s when Revell was at the top of the heap in plastic modelling. They were releasing 1:72nd scale kits faster than they could draw them properly.



SEPTEMBER 1988

AIRFIX MAGAZINE — PAGE 11

# A PRIMER ON PAINTING MODEL CARS

By Franco Ferroni

This information is printed as a supplement to the main F40 article as some of our readers may have already divined the secrets of successfully painting car models. If this is so please return to the text, however the information contained herein may be of help to all modellers.

To begin with, as already mentioned in the main text, to anticipate possible frustrations that are likely to crop up later during the actual construction of any given kit, review the instructions carefully to determine which parts will comprise the completed car body. This is essential to obtain a smooth consistent paint finish on your model. The manufacturers often mould the body in several separate parts because of their complex shapes and curves. You may also find that the doors, bonnet, and boot are moulded as separate parts to facilitate their use as operating components. In either event when they are ready for painting they should be separated carefully from the runners and treated for painting before the actual kit construction begins, regardless of the information contained in the instructions.

First wash these parts in a mild solution of dishwashing liquid and water. This is essential to remove the release agent that is always present on the moulded parts but not always obviously so. Failure to do so may result in the paint not adhering to the plastic or worse yet the paint flaking off in time or coming off in bits on your fingers while you are handling it to show it off, most embarrassing. The next step is to assemble the parts that comprise the body. If you decide to incorporate operating parts such as doors they should be painted separately but at the same time as the body. Before the painting process begins it is a good idea to make a small simple frame from a discarded wire coat hanger.

This frame should assist you in the careful handling of the body and avoid the potential fingerprints in the drying paint.

Everyone has favourite painting techniques and the author is no exception. There are many varieties of products available to the modeller for painting his model but I shall deal with just three in this guide, the last of which is my favourite and possibly the most difficult. Method number one is the most obvious and probably the cheapest and easiest. Pick out a suitable tinlet of the colour of your choice from the rack of Humbrol paints at your local hobby shop. In the case of the Ferrari F40, Humbrol's gloss red is an ideal choice. If you don't possess an air brush select a flat tipped brush of about three-eighths to one half inch width of good quality to do the job, as you don't want brush hairs deposited on your model to spoil the finish. Before actually applying the paint to the model and

after the various body parts have now suitably dried, smooth the join lines over with a fine grained 'wet or dry' sand paper of 400 grade or more. This type of indispensable tool for modelling is readily available at any DIY shop at a nominal cost.

Brush painting is not a simple task and it is very difficult for a beginner to achieve a satisfactory painted finish for a car model by this method. However, having said that, it is finally the cheapest and easiest of the three methods. Be sure and apply a series of thin coats of paint allowing sufficient time between coats for drying so that you can rub down each layer of paint gently with 400 or better yet 600 'wet or dry' paper. If one takes the time and exercises a great deal of patience during this process one can attain a presentable finish to ones model by utilising this technique. Now you can set the body aside for a long time while you begin construction of the balance of the kit.

The second method of painting the body is spray painting it using the same Humbrol range of gloss colours, but instead those contained in the small spray cans, or if you are fortunate enough to own one, by the use of an air brush. This method has the obvious advantage of using an enamel paint, therefore not attacking the plastic, and the final finish attained will be more pleasing due to the fact that the sprayed finish is more attractive to the eye. The disadvantage is that it is more expensive. The spraying process begins as the above method with the assembly of the necessary body parts. You may desire to fill any gaps along join lines with Humbrol 'Body Putty' or another similar product at this time. Again allow the body to dry sufficiently before rubbing down. When you have achieved a sufficiently smooth surface you may now spray the body with a matt primer colour. In the case of the F40 a matt red would be appropriate. If you had chosen white or yellow as the final colour for your model then a matt white for the primer coat (or coats!) would do. For all other colours a matt grey is the traditional primer colour.

A primed model gives one the opportunity to see any imperfections on the surface of the model so that you can correct them before applying the final paint finish. After permitting the body to dry (patience, lads, patience!) rub down or add putty and rub down until you are happy with the finish. Now you can begin the spray painting. While this is a bit easier than brushing the paint on it does have some problem areas and I'll attempt to forewarn the uninitiated about the potential traps. The first coat should always be a 'dust' coat, that is to lightly spray the model from about six to eight inches distance so as not to cover it with a solid colour. Get a good grip on your impulses to avoid seeing the model in glorious

technicolour at this point and set it aside to dry. The next coat should also be a light coat though you may apply it a trifle more consistently than the last. The reason for applying the paint in a series of thin coats rather than one or two thick ones is simply to avoid a dreaded run or pool of paint which could ruin all of your effort. Beware of the temptation to apply thick coats to save time. Set it aside. While the model is drying it should now be mentioned that painting a car model requires a certain degree of dedication, not to worry though, the ultimate rewards for your efforts can be superbly satisfying. Ah, the model is dry once again, that didn't seem like forty-eight hours, did it. Take your trusty 400 'wet or dry' in hand and rub the now terrifically dry paint down. You can repeat the last step above as many times as you humanly can stand it or when the penultimate step provides you with a finish that you personally can live with. The final coat of paint should be a relatively thin coat though this is difficult to regulate with a spray tin. After this final coat set the body aside and start the construction of the rest of the model.

The third and last method of painting plastic model car bodies is the one that I used in painting the F40 in the article. This is not a technique that should be attempted by beginners or those of faint heart as it involves spraying your treasured purchase with laquer paint. As everyone knows, laquer paint attacks the polystyrene plastic that our kits are made from because the two substances are not chemically compatible. One can, however utilise the inherent qualities of the paint by understanding its nature. Lacquer paint is used for painting the full-sized machines and provides them with a bright long lasting finish. The choice of spray touch-up colours available at your local car spare parts shop is usually quite comprehensive and reasonable in cost, about one pound per tin. As the paint contained in these tins is correctly matched to the actual paint used by the auto manufacturers it is only natural that if it is remotely possible to apply this product to your model then it is worth a go. The photographs of the completed F40 model in this article are living proof that one can use this method but it can't be stressed too much that it isn't easy.

Prepare the body as described in the two other methods and place the body on the prepared wire frame. The model will have to be primed using a suitable colour of primer as indicated above. This primer coat is a crucial step as this is the first of the critical stages of applying laquer paint to plastic. When I say dust the model with a fine spray coat, dust is precisely what you should do. Any more than a fine light spray reaching the plastic surface will craze the



SEPTEMBER 1988



SEPTEMBER 1988

## FERRARI'S FANTASTIC F40

Franco Ferroni shows how to build Italeri's 1:24th scale F40

The year 1987 was the 40th anniversary of the famous sports car manufacturer Ferrari. To commemorate this occasion the company made the decision to produce a limited edition machine that resulted in the magnificent F40. Originally they had decided to produce 400 examples but the demand, even at the astronomical price of £125,000 (VAT not inclusive!), was so great that production is continuing and it is expected that Ferrari will eventually construct more than 900 examples. The only way that most of us can come close to ownership of such a fantastic sports car is to opt to purchase a 1:24 scale plastic version. Admittedly the model won't go as fast however, it most certainly is in a less expensive insurance group. By building the model we can experience the appreciation of the car's aesthetics without all the financial worry and hassle.

The full size F40 has a twin DOHC, four valve per cylinder, twin turbo, fuel injected, three liter, V-8 engine of 478 BHP. (Wow, that is a mouthful!) It has a top speed of over 200 MPH and will accelerate from nought to 125 MPH in a mere 12 seconds. It's just the thing for you to pop over to the local hobby shop in just to pick up a tinlet of paint. The

tubular frame is covered with a carbon-fibre body of outstanding beauty. Italeri have managed to capture its essence with startling accuracy.

The successful construction of all car kits always hinges on the painting. The instructions contained in most car kits are usually notable for not stressing this fact however obvious that this may be to the manufacturer. In order to facilitate the smooth execution of any car model one must first consider the painting of the body. I say consider because often times the body of the model is not included in one kit as one piece. This F40 kit is no exception as the rear wing is moulded as a separate piece as well as being a different colour.

These two facts do not present any particular problem though if you happened to make this discovery at step eight in the instructions after painting the body without the wing added you may have a tendency to be a trifle upset. Other kits have doors, boots, and bonnets moulded as separate parts and all body parts should be painted at the same time. After securing the wing, part B65 to the body you may now paint the completed assembly using the method of your choice. (See box!) You might also want to paint the mirrors (parts B70 & B77) and parts B51 & B52 at this time.

Now that the body is painted, set it aside to dry for as long as you can humanly stand not touching it. I recommend any period longer

than 48 hours with a week or two being an ideal length of time. While the body languishes alone in some dust free area you may now begin construction using the kit's excellent instruction sheet. I shall assist you in this process with a step by step commentary to aid in avoiding any potential pitfalls. I must comment that the engineering of the kit is well thought out as the parts are numbered on the trees in the correct sequence for assembly. Therefore construction begins logically with part A1 in step one.

### CONSTRUCTION

#### Step 1.

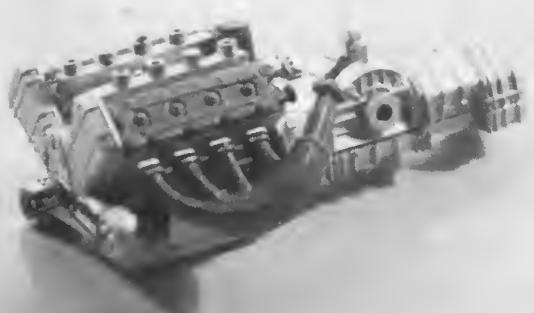
This first step is the basic assembly of the engine parts. It is suggested that the various parts are painted and set aside to dry before beginning to apply the glue. Also be sure to scrape the dried paint off the surfaces to which glue is to be applied. This will avoid headaches later in the day. The only potential problem at this point is that on the plan where the colour black is indicated for part A10 be sure that you only paint the accessory belts black and not the whole part.

#### Step 2.

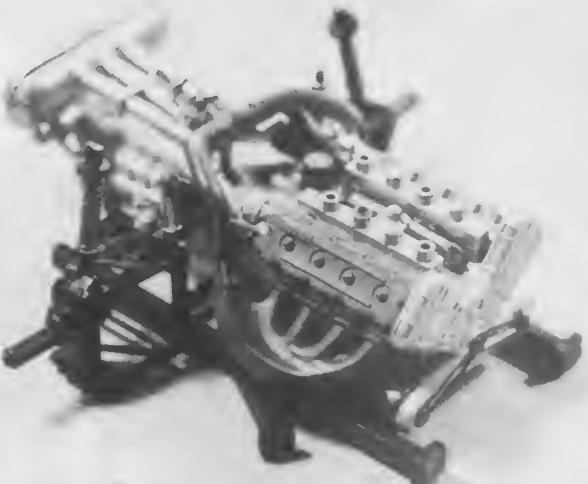
No problems here, though I painted the silver plastic parts a matt aluminum and the black plastic parts a matt black. This is a personal choice and not at all necessary.

#### Step 3.

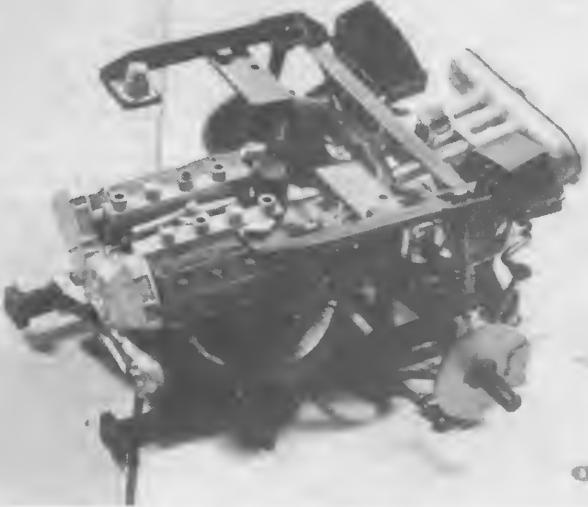
The engine sub-assembly has now accumulated a myriad of bits and looks a lot



The completed engine at the end of Step 1.



At the end of Step 2 the rear suspension members and turbo parts have been added.



When you've finished adding all the parts required in Step 3, the tiny assembly takes on quite a complicated appearance.

more complicated than it really is, it does look good doesn't it.

**Step 4.**

After the above sub-assembly has thoroughly dried it is time to mate it to the chassis assembly. Once again I painted the black plastic parts matt black even though this is optional. I strongly recommend the use of superglue as it will provide a better bond than any plastic cement.

**Step 5.**

The completion of the F40s interior is a piece of cake. The only comment I can think of is to secure the gearshift with C.A adhesive.

**Step 6.**

This step is to remove the bottom rear portion of the body thereby creating an additional part. Have you given your body sufficient time to dry? This operation is required only if you desire to incorporate an operating rear engine cover to your model. As one can see the engine quite satisfactorily through the clear rear window, it is not absolutely necessary. It may save you some grief to avoid this procedure. The clear parts included in this kit are the best I've ever seen. If it is decided to have an operable engine cover be sure and exercise extreme care not to sever the two tiny bits of plastic that will serve as hinges.



The chassis assembly is now ready for addition of the body.



This is the body just prior to final detailing.

**Step 7.**

While the plans do not mention it, the fact is that one should make an attempt to indicate that the car has a black rubber gromet surrounding the windows. This can be simulated by very carefully painting with a fine tipped brush a thin matt black line around the window openings. As this is requires a very steady hand you may choose to ignore this suggestion though it does add to the overall appearance of the completed model. Add parts B51 and B52 to the inside of the body before the clear parts. After exercising the greatest caution so as to avoid applying any adhesive to the clear parts while adding them to the inside of the body, the interior sub-assembly can now be mated to the inside of the chassis.



**Step 8.**

The penultimate step at which time it may be a good idea to sit back for a moment to have a cup of tea. A drop of glue on the paint finish caused by the attempt to rush through to the last step might just spoil your day. It is suggested that to obtain a more realistic effect for the clear plastic pieces that should be a transparent red or amber, use a felt tipped pen of a suitable colour for this task. Do not attempt to paint the black trim line around the body but use a fine tipped "permanent" black pen. These are obtainable at most office or art suppliers at a reasonable cost and have many applications in modelling. While running the pen around the body the moulded groove will act as a guide.

**Step 9.**

This is the final detailing step and after you've stuck on the last tiny bits (2x E78) sit back and wish that you were a 1:24th scale driver behind the wheel at a scale 200 MPH on some Autobahn passing all the natives in their 1:24th scale Mercedes Benz and BMWs.



## MODEL CARS GALORE Lambert Ley Street Models

IF you want to see what is probably the country's best selection of plastic model cars, then you shouldn't miss the opportunity to visit Lambert Ley Street Models. Not only do they keep a huge selection of 1:24 and 1:25 plastic kits but the larger kits such as the 1:12 Monogram's and the 1:9 scale Pocher kits are also on the shelves. They also cater to the needs of the well heeled specialist collectors by offering the resin and white metal 1:43rd scale cars — in both kit

and built-up form. If cars are your passion and you like to build models you really should take the time to pay a visit to this unique shop.

They also have many cars built to a high standard on display in museum type glass cases to inspire the average modeller to better things. The address is Lambert Ley Street, 309 Ley Street, Ilford or give them a ring on 01-478 5659.



# E.D. Models



SHOP/MAIL ORDER: (Dept AF), 64 Stratford Road, Shirley, Solihull, West Midlands B90 3LP. Tel. 021-744 7488



## WORLD'S FASTEST GROWING DECAL RANGE

All decals £1.45 unless stated otherwise.

**AIRCRAFT 1:72nd**

A1 Luftwaffe Swastikas. For small, medium and large aircraft.  
A2 RAF 'B' Type roundels for fighter and medium size aircraft.  
A3 SEAC roundels and Fin Flashes for fighters and medium size aircraft.  
A4 RAF Squadron code letters 1939-mid 1940. Blue/grey, size 36 in (fighters).  
A5 USAF National Markings (Vietnam) for F-4, F-100, F-105, etc.  
A6 RAF code letters. Dull red size 24 in and 36.  
A7/8 This is ONE decal sheet. RAF Type C and C1 roundels for fighters and medium size aircraft.  
A9/10 This is ONE decal sheet. RAF Type A and A1 roundels for fighters and medium size aircraft.  
A11 German WW1 crosses, various styles early and late war.  
A12 German ID numbers WW2, Black and yellow.  
A13 German ID letters WW2. Red and white.  
A14 Croatia national markings plus full Me.109 stencil detail plus unit badges for JG54 Grunherz 1/II/III/IV.  
A15 Hungarian national markings and numbers plus tail KILL markings and unit badges for JG3 UDET.  
A16 German WW2 Underwing crosses 1939-45.  
A17 German WW2 Upperwing and fuselage crosses 1939-45.  
A18 RAF code letters Sky Type 'S' size 24 in and 36 in plus solid sky panel.  
A19 RAF/RN code letters, 4 and 8 in, also words ROYAL NAVY.  
A20 RAF post war 'D' type roundel and fin flashes.  
A21 German Staffel markings.  
A22 German Gruppe markings.  
A23 RAF fin flashes 1940-42 and 1942-47. Also Prototype, Kill, Polish and Czech markings.  
A24 Italian Air Force Emblems. Wing Fases and Code Numbers 1938-43.  
A25 RAF Low Vis roundels pink/pale blue for all RAF aircraft today including Hawk, Nimrod, Tornado, Lightnings and more £1.75.  
A26 RAF code letters for Tornadoes and Jaguars, black and white border £1.75.  
A27 RFA/RAF World War 1 roundels. Various size roundels to suit most 1:72nd aircraft. Roundels with and without white surround. Sheet also includes a solid block of red and blue for fin stripes. £1.95.  
A28 French World War 1 roundels. Various size roundels to suit most 1:72nd aircraft. Sheet also includes a solid block of red and blue for fin stripes. £1.95.  
A29 German World War 1 crosses (Eiserne Kreuz) 1916-17. Various size crosses with and without white outline. Also includes number blocks for maritime aircraft and axial propeller blade transfers. £1.95.

A30 German World War 1 crosses (Eiserne Kreuz) 1918. Various sizes with and without white border. £1.95.  
A31 German World War 1 four colour Lozenge uppersurface. Four blocks of Lozenge each block approx 16 cm in length giving a total of 64 cm. Includes PALE BLUE rib tape. £2.75.  
A32 German World War 1 five colour Lozenge undersurface. Size as per A31. Includes SALMON PINK rib tape. £2.75.  
A33 German World War 1 five colour Lozenge uppersurface. Size as per A31. Includes PALE BLUE rib tape. £2.75.  
A34 German World War 1 five colour Lozenge undersurface. Size as per A31. Includes SALMON PINK rib tape. £2.75.  
S1 RN Transatlantic Race Team F-4K Phantom, Wessex as used in race and Hawker Hunter Rough Diamond Display Team of RNAS Brawdy Lead aircraft.  
S2 Royal NZAF Mustang IV No.3 Sqn. Corsair F4U1 and Kittyhawk wartime markings.  
S3 HP Halifax BVII, No.408 Goose Sqn, No.6 Group RCAF Lancaster B1, No.462 Squadron 'Uncle Joe Again'.  
S5 RAF Hawk Airshow display aircraft 1987. Yellow Hack Hawk T.1A XX159 of No.1 TWU, Union Jack fin Hawk T.1A XX238 and XX172 CFS. Total of three aircraft £1.75.  
C1 Battle of Britain Spitfire I No.54 Squadron flown by New Zealand ace Al Deere and Spitfire I No.234 Squadron by Pilot Officer Hardy and Blenheim IF No.235 Squadron.  
C2 Hurricane No.87 Squadron by W. Cdr. I.R. Widge, Hurricane No.303 Squadron (Polish) by J. Frantisek (Czech pilot) and Defiant No.141 Squadron Flight Lieutenant Donald.  
C3 Battle of Britain 3 Me.109E H. Wicks 1/JG2, Oberleutnant Egon Troha 9/JG3, Lieutenant Werner Machold 7/JG2.  
C4 Battle of Britain Me.110 6/ZG76. Ju.87B 8/STGesh 1.  
C5 allied aircraft North Africa Hurricane IIB No.274 Squadron. P-40 Kittyhawk 1s No.2 Squadron RAAF, P-40F 57FG 66FS. Total of three aircraft £1.95.  
C7 Ju.87B & R. Stuka early years. 7/St.G51, 6/St.G1 and 236 Squadron 96 Grupo Italian AF. Total of five aircraft with FULL stencil detail for three aircraft £1.95.

C6 FW.190D and Bf.109 Protection Flights for Me.262s. FW.190D-9 25 April 1945, JV44. Winged wheel with RED undersurface and white cordwise anti-flak stripes. FW.190D-9 29 December 1944 Hptm Weiss III/JG54. Yellow nose and tail. Plus two variants on the above. Me.109G-14/U4 April/May 1945. Yellow 20 of III/JG7. Sheet includes FULL stencil for 2x FW.190D. Stencil for Me.109 taken from Almark A14. Total of three aircraft can be made from this sheet £2.75.

## AIRWAVES

## AIRWAVES

## AIRWAVES

## AIRWAVES

## AIRWAVES



AW2 Harrier Pilot, Standing



AW4 RN Modern Ground Crew, Left Arm Outstretched



AW8 WW2 USAF Officer With Cigarette



AW18 USAF Jet Pilot Wearing Helmet



AW30 RAF WW2 NCO Squatting



AW7 WW2 USAF Pilot & Dog

We are pleased to announce the purchase of Airwaves Figures by ED Models. These have now been completely repackaged with a full colour picture of the figure described which is designed as a painting guide.

### AIRWAVES WHITE METAL FIGURES 1:48th Scale

|   |       |
|---|-------|
| AW-01 Harrier Pilot, Seated   | £0.90 |
| AW-02 Harrier Pilot, Standing   | £0.90 |
| AW-03 RN Modern Ground Crew   | £0.90 |
| AW-04 As AW-03 Left Hand Outstretched   | £0.90 |
| AW-05 As AW-03 Right Hand Outstretched  | £0.90 |
| AW-06 WW2 USAF Pilot, Standing  | £0.90 |
| AW-07 WW2 USAF Pilot and Dog  | £0.90 |
| AW-08 WW2 USAF Officer with Cigarette   | £0.90 |
| AW-09 WW2 USAF Officer, Leaning   | £0.90 |
| AW-10 WW2 USAF Officer, Lounging  | £0.90 |
| AW-11 WW2 RAF Seated Pilot  | £0.90 |
| AW-12 WW2 RAF Pilot, Running  | £0.90 |
| AW-13 WW2 RAF Pilot/Mae West  | £0.90 |
| AW-14 WW2 RAF NCO Pilot Running   | £0.90 |
| AW-15 WW2 RAF Ground Crew Pointing  | £0.90 |
| AW-16 USAF Jet Pilot  | £0.90 |
| AW-17 USAF Jet Pilot Walking  | £0.90 |
| AW-18 USAF Jet Pilot Wearing Helmet   | £0.90 |
| AW-19 USAF Jet Pilot, Overalls  | £0.90 |
| AW-20 USAF Jet Pilot, Overalls/Cap  | £0.90 |
| AW-21 US WW2 Ground Crew/Clipboard  | £0.90 |
| AW-22 US WW2 Ground Crew, Walking   | £0.90 |
| AW-23 US WW2 Ground Crew, Hands in Pockets  | £0.90 |
| AW-24 US WW2 Ground Crew, Hands on Hips   | £0.90 |
| AW-25 US WW2 Ground Crew, Kneeling  | £0.90 |
| AW-26 RAF WW2 Pilot Man West and Helmet   | £0.90 |
| AW-27 RAF WW2 Pilot, Shirt sleeves  | £0.90 |
| AW-28 RAF WW2 Pilot Seated  | £0.90 |
| AW-29 RAF WW2 Pilot Reclining   | £0.90 |
| AW-30 RAF WW2 NCO Squatting   | £0.90 |
| AW-31 Stuka Pilot Seated  | £0.90 |
| AW-32 Stuka Gunner Seated   | £0.90 |
| AW-33 Luftwaffe WW2 Airman Standing P/Cap   | £0.90 |
| AW-34 Luftwaffe WW2 Airman, Side Cap  | £0.90 |
| extra (approximately 40 per cent). Overseas and BFPO deduct VAT at 13 per cent. Books zero VAT rated. |       |
| POSTAGE ON DECALS AND FIGURES - UK  |       |
| Up to £3.00   | £0.60 |
| Up to £10.00  | £1.50 |
| Up to £25.00  | £2.00 |
| Over £25.00   | FREE  |
| Overseas customers (incl Eire) please add 35 per cent to cover Surface. Airmail                       |       |

### 1:72nd Scale

AW72-01 Standing Harrier Pilot and RN crew £1.80

AW72-02 Walking Harrier Pilot and RN crew £1.80

AW72-03 US Vietnam Pilots £1.80

extra (approximately 40 per cent). Overseas and BFPO deduct VAT at 13 per cent. Books zero VAT rated.

POSTAGE ON DECALS AND FIGURES - UK

Up to £4.00 £0.25

Over £4.00 FREE

CATALOGUE

For our full 64 page list just send 4 x 18p stamps. Overseas please 6 x IRCs.

TRADE TERMS AVAILABLE ON ALMARK DECALS AND AIRWAVES FIGURES.  
JUST ASK FOR DETAILS BY SENDING A REQUEST ON YOUR LETTER HEADED PAPER.

# DECALCOMANIA

A REVIEW OF RECENT TRANSFER RELEASES

Repli Scales 'Fightertown USA' (VF-124) decal is available in both 1:72 and 1:48.

FIGHTERTOWN USA VF-124  
1002 72ND SCALE

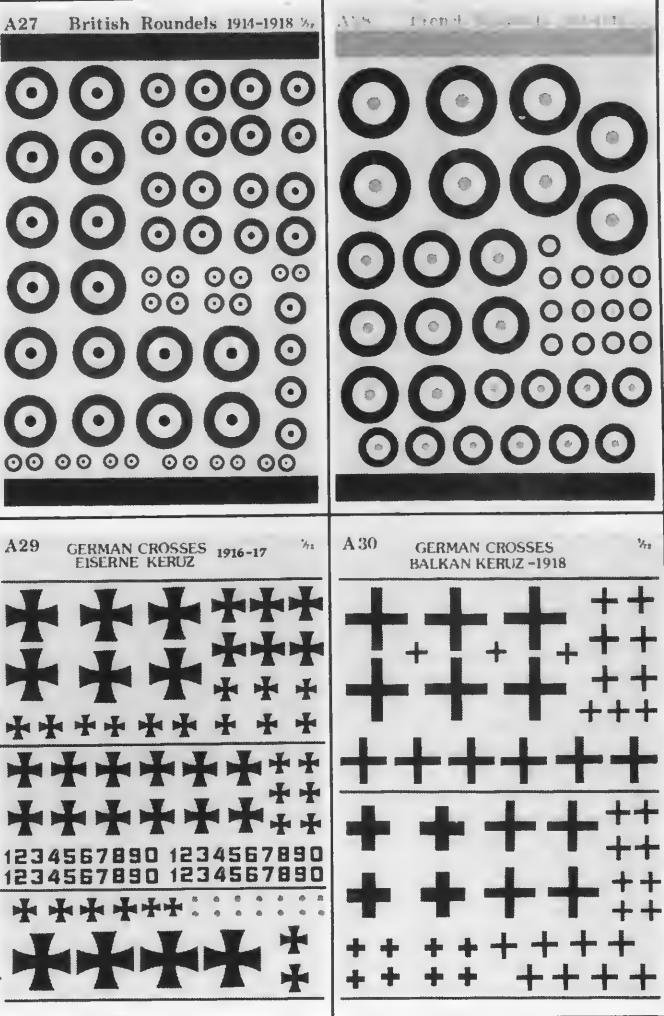


The new Almark lozenge decals are very colourful and will save the modeller much effort.

This month's samples for review were sent by the distributors of Almark Decals, ED Models of Solihull. They consist of no less than eight sheets all of which deal with the subject of World War 1 aircraft subjects which have been hitherto almost ignored by the decal manufacturers. They are therefore a welcome addition to any modeller's library of decals. I specifically used the word 'any' for the following reasons. The average or relatively inexperienced modeller should welcome this selection of crosses and cockades because the transfers included in the World War 1 aircraft kits often are printed in incorrect colours with the centres far off centre. These new sheets from Almark, which were expertly printed by Colourslide, are in the right colour with every roundel's centre printed spot on. As far as the 'expert' or advanced modeller is concerned, he should now not be forced into pinching decal sheets from his secret supply of kits hidden in the loft. The sheets offered are as follows: Sheet A27, British Roundels 1:72, 58 blue whited roundels in nine different sizes with a strip of red, white and blue for rudder stripes; Sheet A28, French Roundels 1:72, 39 red whiteblue roundels in four different sizes with the appropriate red, white and blue for rudder stripes; Sheet A29, german Eiserne Kreuz 1916-17 1:72, 55 Maltese crosses in five different sizes, also included on this sheet are some typical black-on-white numerals of this area and 14 Albatros company insignia; Sheet A30, German Balkan Kreuz - 1918 1:72, 56 of the late war squared-off type crosses in a variety of sizes.

All the sheets inspected were well printed and the colours were all very dense. The adhesive used on the decal paper, called Decafix, utilised by Colourslide is truly the best available. All the sheets reviewed contained a printed page of instructions that adequately explains the background and use of each sheet. The only criticism that needs to be mentioned is that whoever did the artwork needs a German language lesson. On both sheets A29 and A30 the word Kreuz, meaning cross, is misspelled as Keruz. That's admittedly not much to winge about but after all, we reviewers have our precious reputations to live up to.

The decals reviewed and the balance of the Almark transfer range are available directly from ED Models, 64 Stratford Road, Shirley, Solihull, West Midlands, B90 3LP.



Upper left: the World War 1 British roundels; upper right, World War 1 French roundels; bottom row, the two varieties of World War 1 German black crosses.

## ACCENT ON ARMOUR



Phillip Greenwood builds  
Tamiya's 1:35th scale

# CHALLENGER

THE Challenger is a development of the Chieftain Main Battle Tank (MBT), which first entered service with the British army in 1967. Although the Chieftain has been constantly updated with new engines and equipment, a replacement was needed for the early 1980s for several reasons. Tank development had been revolutionised by the mid-1970s, with new fire control systems, extremely powerful engines and most significant of all, by the development of Chobham armour. This laminate of steel, ceramics, aluminium and other secret materials, was invented in Britain and was first used on the American M-1 Abrams and German Leopard 2 battle tanks.

The development of Britain's replacement for the Chieftain, the MBT-80, was getting very expensive and it would not be ready for service before the late 1980s, even if all went well. Meanwhile a much improved development of the Chieftain possessing all the latest technology, had been made for the Imperial Iranian army. However, before any of this new type, named the Shir Iran (Lion of Persia), was delivered, the Iranian government changed and the order for the Shir Iran was cancelled. The British government now found itself with a new tank design financed by the Iranians with

almost all the advanced technology of the MBT-80. The choice was obvious, the MBT-80 was shelved and the Shir Iran was put into production in a slightly modified form, as the Challenger.

### BRITISH ARMY SERVICE

The Challenger entered service with the British army in 1983 with the Armoured Regiment of the 12th Royal Hussars stationed in Germany. Though the Challenger looks similar to the Chieftain almost all the major components were changed from the original design.

The Chieftain's troublesome Leyland L60 engine was replaced with the 1,200 bhp Rolls Royce Condor diesel engine coupled to the new TN-37 transmission with a Howden cooling system. A hydropneumatic suspension system replaced the Horstmann type which was first used on the Chieftain's predecessor, the Centurion. The L-11A5 rifled gun is the same as that fitted to the late marks of Chieftain, and gives firepower superior to any other tank in service anywhere in the world. When firing a standard Armour Piercing Discarding Sabot (APDS) round, targets 3,000 meters away can be hit with 98 per cent accuracy, while the High Explosive-Squash head (HESH) can be

fired with 90 per cent system accuracy to over 5,000 meters. This is more than twice the effective range of most other tanks. The smooth-bore fitted to most of the current generation of MBTs, including the Leopard 2, M-1A1 Abrams and T-74, are accurate to a maximum 1,500 to 2,000 meters range.

The Challenger is fitted with 'Improved Chobham' armour which is a newer type than that used by the Americans and Germans and gives an even higher degree of protection to the crew. The road speed of the Challenger is 35 mph (56 kmh) which is slower than most other MBTs however, the cross-country speed and agility is as good as any and better than most. On trials against the Chieftains the Challenger finished the cross-country battle runs almost twice as fast and the Chieftain is certainly no slouch in this respect.

The Challenger is equipped with an Integrated Fire-Control System (IFCS) which takes into account vehicle attitude, weather conditions, range, speed of target and fling (individual barrel characteristics), all in the matter of two to three seconds. While this system gives good long-range accuracy, it has been criticised for being too slow while engaged in short range gunnery giving a slower rate of fire when compared to the Leopard and

M-1. The IFCS is allied to the Thermal Observation and Gunnery System (TOGS), which is just coming into service and all Challengers were built to accept it. This system uses high-definition thermal image cameras allowing observation and gunnery in all weathers, day or night. More new equipment is currently under development including the Visual and Infra-Red Screening System (VIRSS), L-30 'high technology' gun, new IFCS and the Hughes 'Chain Gun' to replace the co-axial 7.62 machine gun.

### TAMIYA MODEL USED

Tamiya released their superb 1:35th scale model of the Challenger early in 1987 as a result of popular demand. As good as this kit is, it could use a few additional detail items if you choose to take the time and effort. This is due to Tamiya's included option for motorisation. All their kits are usually designed with a removable top hull. The kit is relatively easy to build by following their step by step instruction sheet. But as this does not tell you everything, this article is intended to help the beginner develop the skills which will help transform him from a 'kit builder' to a 'scale modeller'.

Before I begin building the kit,

I would like to say a few words about tools. The essential items are a sharp knife, I use a No.4 scalpel handle for heavy cutting, and a No.9 handle for smaller blades used for detail work. Next on the list is a set of small rat-tail files, a pin-chuck with small drills, tweezers, nail clippers, miniature pliers, scissors, razor saw blades and a steel rule. Another item that is invaluable to the modeller is a 'Murphy's Rule'. This is a ruler marked in scale feet and inches, mine is 1:32nd and 1:35th scales though rules for 1:72nd and 1:48th are also available.

As stated earlier, the Tamiya kit is modelled on one of the early production Challengers which include tanks from 33KA94 to at least 34KA10. Photographs of later tanks with numbers from 34KA53 to 35KA34 show that some minor changes have been made. The later tanks have a different front plate which is bevelled at both sides (the early plate is 'stepped' on the left side) and the two rectangular openings each side of the hatch have welded patches over them.

I decided to build my tank as one of the later vehicles but this is strictly optional. An accurate model can be built without these modifications. I started out by reading the instruction sheets and making sure that I understood the assembly. It is a good idea to 'dry run' the assembly as this can help avoid costly mistakes.

The lower hull and trackwork, sections 1 to 8, were built without much trouble following the instructions. When finished I painted the hull sides and the wheels in the basic colour, which for my model was Light Olive Green (Humbrol 86) and dark grey for the tyres. The tracks were also painted at this stage, steel grey with the rubber blocks painted black, and when dry they

the use of super glue to stick the mesh to the camouflage net bin as it's fast drying characteristics made the job much easier.

I like to leave the detail work. This is an optional step. A little plastic card was all that was needed to do so (see photo). Earlier in the construction a dry-run discovered that parts A-29 stand too proud so I filed about 20 thou from the lower sides before cementing them in place to insure a good fit. The remainder of the hull assembly went off without hitches. I now cemented the upper hull to the lower hull and trackwork then cemented the side plates in place.

The hull and turret could use a few minor details added to give that extra touch of realism. If you want that finishing touch, make the small parts shown on the drawing. Parts 'A' and 'B' which are for the track guard support brackets. Parts 'C' are the fittings for the rear hull sides. I made these from 20 thou plastic card and Microstrip.

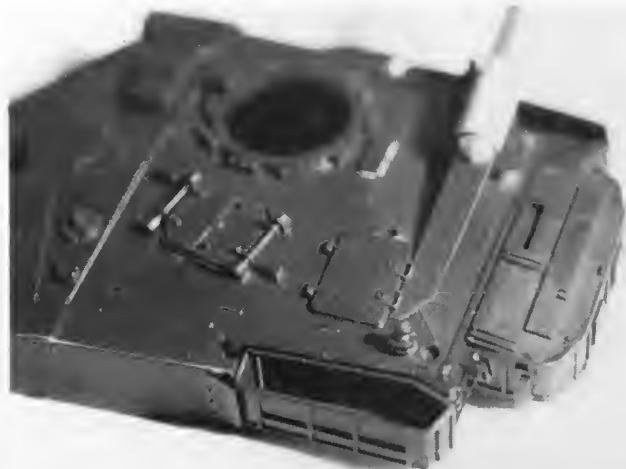
Because of the kit's motorised option, the inner track guards have a small square-shaped

This is how to relieve the hatch handles with a razor saw. Exercise the greatest caution doing so.

were given a 'wash' of thin brown paint. Two strips of 40 thou plastic card were cemented to the inner hull sides to support the upper hull and so give the model extra rigidity.

### TURRET ASSEMBLY

Building the turret is the next step. I found this assembly rather tricky, especially lining up the turret sides B-72 and B-78. Insure that these parts are flush with the top of the turret. My next job was to cut away the excess plastic from under the grab handles on the hatch situated on the top left rear corner as shown in the photo. I first made a cut with a razor saw then carefully removed the plastic under the cut with a scalpel tip. The handles on the second hatch were undercut with a modified dental probe however, a scalpel tip is just as good for this job. The joints on the turret can be filled with plastic putty once assembly has been completed. I used Squadron 'Green Putty' for this as it bonds with the plastic. Humbrol 'Body Filler' is just as good and works in the same way but as a caution do not use these types of putty in large quantities as they will attack the plastic. Once the putty has set, I used a medium-fine wet and dry abrasive paper for rubbing down, 300 to 600 grade is recommended. This completes the major assembly. During construction I used MEK until the last so when I had completed the turret I returned my attention to the hull. My first job was to modify the front hull to that of the late production tanks. liquid cement for the simple reason that it is less destructive than tube cement. I did resort to



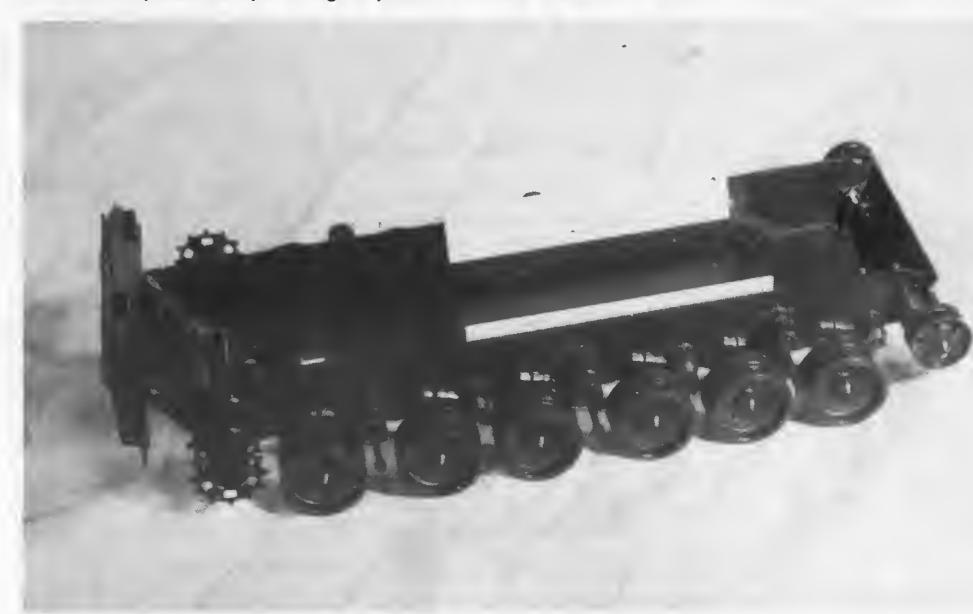
notch to facilitate the removal of the upper hull. These small holes must be filled before the support brackets can be fitted, see photo. The support brackets are bolted to the hull so I cut eight bolt heads from a scrap model as shown in the photograph. You may also make these from sections cut from plastic rod of an appropriate size. I cut four more bolt heads for the camouflage net stowage bin mountings, two on the right hand side and the second pair on the bin fitted to the left of the turret front. Refer to the photograph. The position of the small strips, part 'C' are illustrated in fig.3.

The antennae were made from 20 thou brass wire, as were the driving mirror stems and the handle on the drivers hatch. I did not glue the antenna wire in place, so that if the wire is accidentally bent it may be replaced more easily.

The model is now ready for a good wash in warm soapy water, this removes all the grease and dust your model has collected during construction. I use a soft shaving brush to clean the model as this will not damage the small parts. When dry, the model is ready for painting.

### CAMOUFLAGE POSSIBILITIES

The British army uses several different camouflage schemes, the most common being the 'Temperate' Light Olive Green/Black irregular pattern. The winter and desert patterns are simple variations of this as in winter the Black is over-painted in White, while in the desert scheme the Black is overpainted with Sand. Light Olive Green remains the basic colour. For many years after World War 2 Deep Bronze Green was much in evidence, though in recent times this seems to be restricted mainly to vehicles based in the United Kingdom. It appears that this colour has now been replaced with a 'Dark Olive' which from the photographs I have seen, is more of a brown shade than

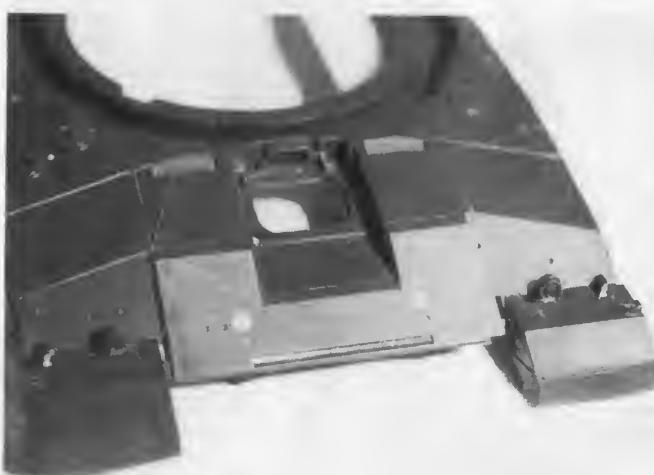




Another handy tool is a dental probe though my dentist may miss his soon.



Any gaps that occur during construction can be filled with putty.



The two dots are holes that were filled and rubbed down.



The use of Microstrip is recommended for tasks such as this.

anything used previously.

Most Challengers are painted in the Light Olive/Black camouflage pattern which has a ratio of  $\frac{2}{3}$  Light Olive to  $\frac{1}{3}$  Black. The Black is sprayed in large blotches, or broad strips, but not in the thin stripy pattern as shown on the instruction sheet. A few tanks are in the new Dark Olive colours, both in the UK and in BAOR Germany. Apart from the number plates, vehicle markings are restricted to a Union Jack (BAOR), tactical markings and tank number. The tactical markings are the usual geometric shapes painted in contrasting camouflage colours, such as Black on Light Olive or Light Olive on a Black surface. When not on exercise, a small rectangular plate carrying the regimental badge is fastened to the door of the TOGS unit (kit part B-4). The instruction sheet has two recommended schemes, the first referred to as 'The British Army of the Rhine in West Germany' being a new tank of the Royal Hussars. It has tactical markings but has not yet had the Black disruptive pattern applied. The second example, 'UK Mainland division', is for one of the Challenger prototypes.

#### PAINTING

Painting is the single most important modelling discipline for it can make a good model look bad but a well painted model can hide a lot of construction faults. For this reason I prefer to use an air-brush, at least for the basic colour. This is cheaper in the long run than using aerosol cans however, they are expensive, messy and must be well maintained. Humbrol, and some other makers, now produce many of the standard paint colours for armour in small aerosol cans, ideal for painting one or two models at a time. I would certainly recommend their use for large models as this. Brushing by hand can also produce good results especially with Humbrol paint which has superb covering ability. Take note that it is very important that the paint is thoroughly mixed otherwise it will dry streaky and with an uneven finish.

Whichever method you wish to employ, the first step is to clean the model, washing it with the usual mild solution of dishwashing liquid and water and leaving it to dry in a place where it will not get too dusty. A quick wipe with an anti-static cloth will remove all dust particles just before painting. Painting is carried out in the stages described below:

*Stage 1.* Paint the model in the basic colour then leave to dry in a sealed box, this prevents dust settling on the paint. *Stage 2.* After the base coat is dry apply any camouflage patterns that may be

required. *Stage 3.* The next task is to paint the small details, such as lights and small fittings that may be in colours other than the body of the vehicle. *Stage 4.* Decals must be applied to a gloss surface or they will not adhere. A thin coat of Gloss Varnish should be applied to your model before the decal application. After applying the decals and they are properly dried, brush them over with another thin coat of Gloss Varnish and set aside to dry. *Stage 5.* A thin coat of Matt Varnish will return the model to a matt finish. *Stage 6.* The model can now be weathered simulating dirt, oil and rust stains.

Remember that all the paints or varnishes must be dry before you apply further coats, allow at least 24 hours per coat drying time.

Weathering is an art in itself and takes a great deal of practice to get a satisfactory effect. A thin 'wash' of Black paint applied to the model will give 'age' to the colours and will give definition to joints and seams. A similar 'wash' of thin Brown paint will help to 'dirty' the model but try to keep it away from the said joints and seams. Oil stains can be simulated by a thinned dark black-brown mixture dribbled over the filler caps and allowed to run down the engine deck or hull sides. Red-brown rust stains can be done with a 'dry brush' technique. This is accomplished by taking a large brush with just a dab of paint on the end and stippling it on to the areas on which you wish to indicate rust. An old brush with the pointed end trimmed off is best used for this method. I have found that Humbrol HM7 Khaki Drill is an ideal colour for this.

Tanks used by most of the major powers are usually well maintained in peacetime so it would be unrealistic to give them the sort of treatment you would a weary PzKfw IV of the Eastern Front in World War 2, or an American M-48 in the jungles of Vietnam. Most Challengers I have seen are fairly clean and tidy but they do get a little 'grotty' after several days on field exercises. A good weathering job can serve to disguise a multitude of sins such as streaky paint finishes or the application of too much matt varnish. If your kit is beyond redemption than paint can safely be removed with a product called Modelstrip and after application you can start all over again!

For most of your Armour modelling needs:

ED Models,  
64 Stratford Road,  
Shirley, Solihull,  
West Midlands. B90 3LP

Wings and Wheels Models,  
30 Westgate Buildings,  
Bath, BA1 1EF  
Avon.

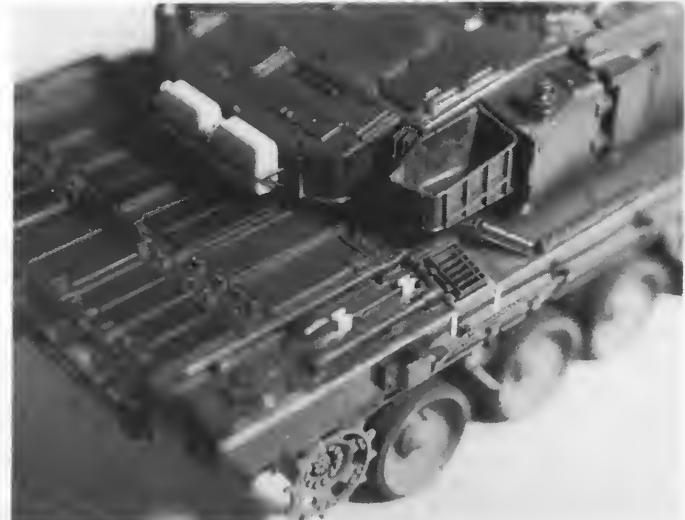
For the following supplies:  
Pin Chuck, steel rule, files and fine drills.  
Any good local hardware store



The white Plasticard contrasts with the plastic of the hull and shows clearly where to place it.



This shows the addition of the two Plasticard brackets made from the drawing. These are optional.

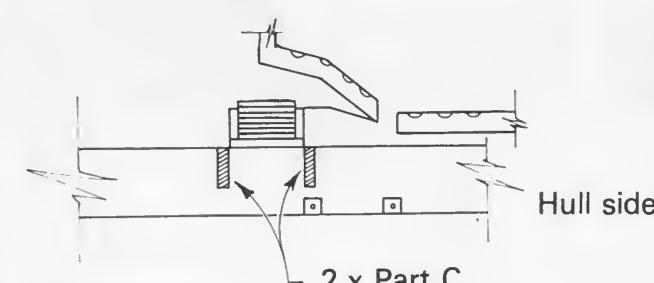


Little details as these additions add greatly to the overall appearance of the finished model.

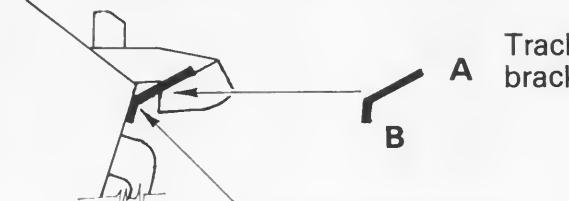


Tamiya's Challenger completed and painted.

Fig.3



Front track guard Fig.2  
(inner)



A Track guard support bracket

Fill this area with  
20 thou plastic card  
before fitting the  
support bracket

Fig.1



2 x A      2 x B      4 x C

## KITOGRAPHY

This month's cover depicts the re-launch of NASA's space programme, which by coincidence was to be concurrent with the appearance of *Airfix Magazine* on the news stands. Hopefully the Space Shuttle will once again be fully operational and the limits placed on the inhabitants of this planet imposed by gravity will once again be freed. The Shuttles are the only spaceships we have on earth. All other means of transport devised to escape the bonds of our gravitational field are mere disposable pyro-technical devices. In order for any crew members to make the necessary return trip from these firecrackers to the surface of the earth they must use emergency procedures. The way home for the cosmonauts is by parachute and parachute alone.

We have all become jaded in time and have forgotten the significance of the Shuttle. The Challenger tragedy two years ago occurred during a peak of optimism and was probably the result of some technological complacency. The concept of a space ship has been in the collective imagination of mankind for a long time but the Shuttle is a reality. It is a space ship, man's first space ship and its future success will lead the way to bigger and better designs that will increase man's determination of his own destiny.

As modellers, we seem to always want to express our interest in topical subjects and the kit manufacturers have not let us down regarding the Shuttle. They offer us no less than nine different models of the vehicle in a variety of scales.

Revell have wisely included no less than six different models in their 1988 catalogue to coincide with the Shuttle's planned September launch. They are as follows:

**Kit 4248**, Space Shuttle & Boeing 747 in 1:288th scale. This shuttle and transporter kit depicts the shuttle on top of the massive 747 airliner that was converted into a transporter aircraft to ferry the shuttle back to its launch site after any diversionary or emergency landing other than Cape Kennedy.

**Kit 4249**, Space Shuttle & Booster Rockets in 1:288th scale. This kit is of the Shuttle mated to its booster rockets in the identical diminutive scale as the above. The completed models in this miniature form are ideal for display on a desk top and also are simple in construction.

**Kit 4344**, Space Shuttle Atlantis in 1:144th scale. This is a slightly larger kit and is of the Shuttle alone with an operable cargo bay that includes a suitable cargo of satellites. It is in the more popular 'airliner scale' and may be displayed alongside the many other kits in this scale for a comparative view of the Shuttle's size.

**Kit 4732**, Space Shuttle Atlantis & Booster Rockets in 1:144th scale. The subject illustrated in our photo, which is truly an impressive model. Our copy was kindly supplied by Revell (GB) Ltd. This kit begins to give the impression of the immense size of the Shuttle and its component parts. It comes with the 'Tortoise' vehicle that transports the ship to the launch pad which also doubles as a handy display stand. That is a welcome inclusion to this excellent kit and it was a joy to build as well.

**Kit 4911**, Space Shuttle & Boosters with Launch Tower in 1:144th scale. If you thought that the above model was large, then this one is definitely huge. All the intricacies



Revell kit number 4732 of the Space Shuttle with boosters.

of the launch platform and tower are faithfully reproduced in this massive kit. A genuinely impressive effort.

**Kit 4733**, Space Shuttle Atlantis with interior in 1:72nd scale. While the above model is quite overwhelming as to its size, this one is designed to dazzle the adherents to the world's most popular scale. This model which accurately depicts all the myriad of ceramic tiles bonded to the Shuttle's skin would be most impressive when displayed with the balance of your 1:72 model collection.

The next manufacturer that has come to grips with the subject of the Shuttle is Monogram. They have gone one better than Revell and have released their 1:72 Shuttle kit with the booster rockets and the spare fuel cell included. This is the largest kit box I have ever seen, never mind the completed model. It is said that the Americans like their pleasures big and this kit certainly would tend to confirm that assertion. Monogram's other Shuttle kit is a 'Snaptite' version which

is directed at the younger modeller. Both are still in the RIKO catalogue and should still be available.

Last but not least is Hasegawa's 1:200 offering. It fits into their airliner range and one might expect them to release it at a later date with their Boeing 747 kit included as a transporter. It is a good little kit that fits sizewise between the 1:144th and 1:288th versions available.

That is all the choices that I found in the catalogues and shops at the time of this writing. There were other kits on the market in the past but it is really pointless to list them in this article. I did find that Shuttle kits in general were not easy to find. After Revell supplied me with the review example I found that MilSlides model shop, 21 Streatham Hill Road, Streatham had a good cross section of the kits listed.

I think it would be wise to locate your kit soon because after the actual launch takes place they are sure to be as rare as hens teeth. Happy kit hunting.

**BUYING COLLECTIONS OF KITS**  
We are always interested in buying collections of plastic kits of aircraft and helicopter, especially Frog and Airfix

**MIL SLIDES**  
106 SELSDON ROAD, SOUTH CROYDON, SURREY CR2 6PF

**INTRODUCTORY OFFER**  
FOR THE RE-LAUNCH OF AIRFIX MAGAZINE  
MATCHBOX AT LOW PRICES  
Postage and Packing £2.00 on any size order

|                               |       |                  |
|-------------------------------|-------|------------------|
| Spitfire Mk.IX                | £1.85 | Sale price £1.25 |
| Boeing P-12A                  | £1.85 | Sale price £1.25 |
| Mitsubishi Zero               | £1.85 | Sale price £1.25 |
| Dornier Alpha J.              | £1.85 | Sale price £1.25 |
| Focke Wulf FW.190A            | £1.85 | Sale price £1.25 |
| Bell AH-1 Huey Cobra          | £1.85 | Sale price £1.25 |
| BAC Strikemaster              | £1.85 | Sale price £1.25 |
| Hurricane Mk.IIc              | £1.85 | Sale price £1.25 |
| Northrop F-5A Freedom Fighter | £1.85 | Sale price £1.25 |
| Red Arrow Gnat                | £1.85 | Sale price £1.25 |
| F4U-4 Corsair                 | £1.85 | Sale price £1.25 |
| Messerschmitt Bf.109E         | £1.85 | Sale price £1.25 |
| Grumman Hellcat               | £1.85 | Sale price £1.25 |
| Messerschmitt Me.262          | £1.85 | Sale price £1.25 |
| P-47D Thunderbolt             | £1.85 | Sale price £1.25 |
| Hawker Tempest                | £1.85 | Sale price £1.25 |
| Brewster Buffalo              | £1.85 | Sale price £1.25 |
| Westland Siskin IIIA          | £1.85 | Sale price £1.25 |
| Henschel HS.126               | £1.85 | Sale price £1.25 |
| Red Arrows Hawk               | £1.85 | Sale price £1.25 |
| A-4N Skyhawk                  | £1.85 | Sale price £1.25 |
| Percival Provost              | £1.85 | Sale price £1.25 |
| F-86E Sabre                   | £1.85 | Sale price £1.25 |
| SAAB J-29F Tunnan             | £1.85 | Sale price £1.25 |
| Aeritalia G-91Y               | £1.85 | Sale price £1.25 |
| SBC-4 Cleveland/Helldiver     | £1.85 | Sale price £1.25 |
| Fairey Seafox                 | £1.85 | Sale price £1.25 |
| Buckeye                       | £1.85 | Sale price £1.25 |
| OH-58                         | £1.85 | Sale price £1.25 |
| Mirage                        | £1.85 | Sale price £1.25 |
| Hawk 200                      | £1.85 | Sale price £1.25 |
| Mystere IVA                   | £1.85 | Sale price £1.25 |
| HMS Ariorde                   | £1.85 | Sale price £1.25 |
| Z38 Narvik                    | £1.85 | Sale price £1.25 |
| Fletcher                      | £1.85 | Sale price £1.25 |
| HMS Kelly                     | £1.85 | Sale price £1.25 |
| Panzer PzKpfw 111 Ausf I      | £1.85 | Sale price £1.25 |
| M16 Half Track                | £1.85 | Sale price £1.25 |
| Sdkfz 124 Wespe               | £1.85 | Sale price £1.25 |
| M24 Chaffee                   | £1.85 | Sale price £1.25 |
| Jagd Panther                  | £1.85 | Sale price £1.25 |
| Panzer 11 Ausf                | £1.85 | Sale price £1.25 |
| Hanomag Sdkfz                 | £1.85 | Sale price £1.25 |
| Sdkfz 232 Car                 | £1.85 | Sale price £1.25 |
| M40 GMC                       | £1.85 | Sale price £1.25 |
| Panzer Jaeger IV/70           | £1.85 | Sale price £1.25 |
| Krupp Protz Kfz 69            | £1.85 | Sale price £1.25 |
| M.7 Priest                    | £1.85 | Sale price £1.25 |
| A-7D Corsair II               | £1.85 | Sale price £1.25 |
| HS Buccaneer S.Mk.2B          | £1.85 | Sale price £1.25 |
| Dornier Do.28D                | £1.85 | Sale price £1.25 |
| Curtiss SB2C-1 Helldiver      | £1.85 | Sale price £1.25 |
| HS.125-600 Dominie            | £1.85 | Sale price £1.25 |
| Messerschmitt Me.410A         | £1.85 | Sale price £1.25 |
| BAC Lightning                 | £1.85 | Sale price £1.25 |
| DH Mosquito B.IX/NF.30        | £1.85 | Sale price £1.25 |
| Hawker Hunter F.6/T           | £1.85 | Sale price £1.25 |
| P-38J Lightning               | £1.85 | Sale price £1.25 |
| SAAB Viggen                   | £1.85 | Sale price £1.25 |
| Fairchild A-10A               | £1.85 | Sale price £1.25 |
| Vickers Wellesley Mk.1        | £1.85 | Sale price £1.25 |
| F9F-4/F9F-5 Panther           | £1.85 | Sale price £1.25 |
| Noorduyn Noreseman            | £1.85 | Sale price £1.25 |
| BAC Lightning T.55 two seat   | £1.85 | Sale price £1.25 |
| DH Twin Otter                 | £1.85 | Sale price £1.25 |
| Gloster Meteor NF.12/14       | £1.85 | Sale price £1.25 |
| Panavia Tornado F.3           | £1.85 | Sale price £1.25 |
| SAAB Viggen two seat          | £1.85 | Sale price £1.25 |
| Heinkel He.70                 | £1.85 | Sale price £1.25 |
| Graf Spee                     | £1.85 | Sale price £1.25 |
| HMS Tiger                     | £1.85 | Sale price £1.25 |
| USS Indianapolis              | £1.85 | Sale price £1.25 |
| 17/lb Gun/JEEP/Morris         | £1.85 | Sale price £1.25 |
| 30 cwt Chevy LRDG Jeep        | £1.85 | Sale price £1.25 |
| Tank Transporter              | £1.85 | Sale price £1.25 |
| Pak 40/MB Side Car            | £1.85 | Sale price £1.25 |
| Churchill Bridge Layer        | £1.85 | Sale price £1.25 |
| Aston Martin Ulster           | £1.85 | Sale price £1.25 |
| Bugatti Type 59               | £1.85 | Sale price £1.25 |
| Porsche 911 917-10            | £1.85 | Sale price £1.25 |
| Jaguar SS-100                 | £1.85 | Sale price £1.25 |
| Surtees TS-16                 | £1.85 | Sale price £1.25 |
| MG TC                         | £1.85 | Sale price £1.25 |
| Tyrell F1                     | £1.85 | Sale price £1.25 |
| Citroen Leger                 | £1.85 | Sale price £1.25 |
| Auto Union Type D             | £1.85 | Sale price £1.25 |
| Bismarck                      | £1.85 | Sale price £1.25 |
| HMS Duke of York              | £1.85 | Sale price £1.25 |
| Vickers Wellington B.X/GR.XIV | £1.85 | Sale price £1.25 |
| B-25H/J Mitchell              | £1.85 | Sale price £1.25 |
| BAC Canberra PR.9             | £1.85 | Sale price £1.25 |
| Dornier Do.18                 | £1.85 | Sale price £1.25 |
| Grumman EA-6B Prowler         | £1.85 | Sale price £1.25 |

LARGE SAE  
LISTS  
OVERSEAS 4x  
INTER COUPONS

TELEPHONE ORDERS welcomed, quoting credit card number and expiry date.  
Our numbers are 01-681 2428. Overseas, outside business hours (0737) 63658.  
POSTAGE AND PACKING: Orders to £5.00 £1.25; to £10.00 £2.00; to £25.00 £3.00;  
over £25 post paid. OVERSEAS: orders to £5.00 £1.75; to £10.00 £4.00; to £25.00 over  
£6.00. Airmail extra.  
Please allow 21 days delivery on new customers.

**OLD/DISCONTINUED KITS**  
If you are looking for an old/discontinued kit, you can do no better than contact the Specialist - we hold good stocks of discontinued lines and unusual kits bought in from the many collections we buy - just give us a call and ask for Mr Molton on 01-681 2428



**ONE OF  
THE WIDEST  
RANGES OF  
PLASTIC KITS  
UNDER ONE  
ROOF IN  
BRITAIN**

|                                   |        |
|-----------------------------------|--------|
| Porsche 911 Turbo '85             | £10.99 |
| Porsche 911 Carrera '85           | £10.99 |
| Porsche 911 Carrera Targa '85     | £10.99 |
| Porsche 911 Coupe '88             | £10.99 |
| Porsche 911 Special Body          | £10.99 |
| Porsche 356B/C Coupe Carrera      | £10.99 |
| Porsche 356B Roadstar 1600SL      | £10.99 |
| 356A Cabriolet 1500GS Carrera     | £10.99 |
| 356A Cabriolet Hardtop 1600SL     | £10.99 |
| Porsche 930 Turbo '75             | £10.99 |
| Porsche 911 Carrera Cabriolet '85 | £10.99 |
| Porsche 911 Carrera '73 Rally     | £10.99 |
| Porsche 911 3.0                   | £10.99 |
| Porsche 911 Speedstar             | £11.99 |
| Porsche 356B/C Carrera Cabriolet  | £11.99 |
| 356A Speedstar 1500GS Carrera     | £11.99 |
| Porsche 356B/C Hardtop Carrera    | £11.99 |
| BMW M635                          | £10.99 |
| BMW Schnitzer 635                 | £10.99 |
| Alpina 87 Turbo Coupe             | £10.99 |
| BMW Harte                         | £10.99 |
| Ferrari Dino                      | £10.99 |
| Ferrari Dino Spider               | £10.99 |
| Ferrari 356GTB/4 Daytona Coupe    | £10.99 |
| Ferrari 356GTB/4 Race Version     | £10.99 |
| Ferrari 456GTB/4 Special          | £11.99 |
| Ferrari Dino 246GT Early          | £10.99 |
| Ferrari 288GTO                    | £11.99 |
| Ferrari 365GT/4 Spider            | £11.99 |
| Ferrari F-40                      | £10.99 |
| Countach 5000 Quattrovalvole      | £10.99 |
| Lamborghini Countach LP400        | £10.99 |
| Lamborghini Countach 5000 Special | £10.99 |
| Countach LP500S                   | £10.99 |
| Lamborghini Dome-0 Racing Le Mans | £10.99 |

STOCK AND PRICES  
AS OF AD. COPY  
DATE  
SAE  
ALL ENQUIRIES



# KIT COMMENT

## CG-49 USS VINCENNES

Manufacturer: Skywave/Pit Road

Scale: 1:700

Price: £14.99

NO, modelfans, the price printed above is not a mis-print. The aficionados of 1:700 scale waterline ship models will no doubt even force a wince when they fork over no less than three fivers for this tiny ship model and receive only one thin penny in change.

Having got that off my chest, I can say that the kit is an excellent example of the craft of kit manufacture. For a long time the collectors of 1:700 waterline ship models have had no new products to build and Pit Road, a new name on the scene, acquired the Skywave moulds from that now defunct company and are busily producing a selection of modern warships to intrigue the waterline enthusiast. Obviously, the demand for these little items is not sufficient to warrant competitive pricing.

If you do watch the 'Nine O'Clock News' then the *USS Vincennes* should tweak your memory banks to recognise the name that will ultimately take its place in the history books along side other infamous ships such as the *SS Titanic*. It is always of interest to us modellers to build a kit of a subject that figures in current events.

The kit itself is a good one and was virtually an evening's pursuit. The instruction sheet is printed in Japanese characters only but the clearly drawn staged drawings are sufficient to complete the model without any difficulties.

The only hardship is the application of the many tiny coloured deck line transfers. I would recommend that instead of attempting to apply them as one piece as printed, you will save yourself a lot of grief by cutting the circles into semi-circles first.

That simple hint should save the average modeller an hour or so of serious frustration.

The model as photographed is not yet rigged, though in this small scale it

could be suggested that rigging is not visible, however I plan to do so. I included the 1:700 scale Soviet reconnaissance aircraft and perhaps the result could be titled: 'Beware, Bear'.

Jim Wood

ing down the join lines, the model needed no filling.

The paint scheme is the basic USN Gull Grey over white but don't forget to paint the rudder white. The wing flaps and the tailplane are also overall white, so it is best to leave those parts off the model until the rest of the aircraft is completely painted. If you had taken the option to display the wing in the up position, it is handy to paint it separately as well.

As you can see in the photograph, I chose the VFP-63 scheme for it is one usually seen on the reconnaissance versions only. This is a good kit and I can't wait to start the other two ESCI Crusader kits.

J.W. Patterson

## DOUGLAS F3D-2 SKYNIGHT

Manufacturer: Matchbox

Scale: 1:72

Price: £3.10

Well, US Naval aviation fans, Matchbox have done it again with the release of this second of two types in less than a year of models that should be most rewarding to all of you. The first was the T-2B/C Buckeye late last year and now the Skynight, a type that I personally never thought a manufacturer would have the wisdom to produce. It just goes to show that there are people out there in model land who are truly concerned with the needs and desires of the kit building public.

All parts were of clean fit and the actual time involved in construction was minimal. I enjoyed this process and when the time came around to paint it, I found that with just a tiny bit of rubber

perhaps in the future if my editor permits, I shall review all available Crusader kits.

To begin with, this kit is another well executed example of the kit manufacturer's art. It is a kit worthy of an expert because of its quality moulding and one that is suitable for the beginner due to its simplicity. The wing flaps are moulded separately and may be displayed either in the up or down position.

Likewise the Crusader's unique variable incidence wing is included as a separate assembly

with a hydraulic actuator so that it too has the option of an up or down display position. This rather unorthodox feature was included as a design feature on the real aircraft to afford the pilot better visibility during carrier landing approaches. Inspite of this novel design, the Crusader in service could not avoid the unfortunate appellation of 'The Ensign Killer'.

All parts were of clean fit and the actual time involved in construction was minimal. I enjoyed this process and when the time came around to paint it, I found that with just a tiny bit of rubber

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

matt grey. Also be sure and paint the hull side frames before you assemble the wheels and sprockets to them.

The camouflage net bin at the rear of the turret is the only really fiddly part of the construction and if you adept with the use of super glue, I would heartily recommend its use for this assembly.

Be sure to paint the tracks before attempting to add them to your model. These new hard plastic tracks in the same way that people who are committed to old black vinyl records dissapprove of compact discs. The latest series of armoured fighting vehicles and figures from ESCI could possibly inspire a new wave of enthusiasts that already have seen the waning of interest in the rather dated 1:76th scale.

I hope that mini-diatribe got your

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

I am sure that my own personal choice of scale in armour won't influence you one bit to alter your own, but ESCI's range of armour and accessories in 1:72nd scale continues to expand and leave less open space on my shelves.

I was very pleased to see this kit of the Merkava appear as it has always been high on my list of wants. This little jewel did not disappoint me at all when I opened the box. Every part is crisply moulded in a tan plastic and the kit simply falls together. As with most tank kits, it is a good idea to paint the bogey wheels in the basic colour, in this case khaki, and then paint the rubber portions either matt black or dark

attention, because it was supposed to.

### McDONNELL F2H-3 BANSHEE

Manufacturer: Hobbycraft

Scale: 1:72

Price: £4.99

The re-release of the Airfix kit of the Banshee at the same time as this new kit may seem to be ill-timed but the two kits really share only their names. This new offering from Hobbycraft is of the later version, the F2H-3, which saw service in the Royal Canadian Navy and differs substantially from the Airfix F2H-2. There were enough changes in the prototype to justify the designation being changed from the dash two to dash three with the most obvious cosmetic difference being the lengthened fuselage. There were power plant as well as other internal detail updates. The F2H-3 was also used by the US Navy and the transfer sheet reflects this.

Upon opening the box one finds a collection of very finely moulded parts that transcend the description of "Nice for a first effort". Every part is cleanly and crisply moulded and the panels are represented by finely etched lines. All the parts fit well and the model in the photograph was completed without the use of any filler or putty. It is an easy kit to build and I found that I had a little gem of a model to add to my seaborne aircraft collection in about five hours of work.

The only criticism I can level at this kit is the standard of the transfer sheet, on which is printed two sets of markings. One set is for a colourful version of the Royal Canadian Navy type and the other for an equally colourful version of the US Navy. The designs appear to have been printed from some rather poorly drawn art-



work and are not up to the high standard of the kit itself. I decided to paint my model as a US Navy type and used alternate transfers from the Scale-Master series of letters, numerals, and insignia. This series is available from Hannants and Mil-Slides mail order houses. If you decide to do the RCN version, a complete set of markings is available on the rather better printed Tasman Model Decal sheet number V7205, also obtainable from the above mentioned sources.

An added bonus of this kit is that if you should desire to make the later type of Banshee, the F2H-4 used by the US Navy only, it is possible

because the -3 is identical to the -4. It probably won't be long before Superscale (formerly Micro-scale) decals has a complete series of markings for this kit on the market.

J.W. Patterson

### LTV A-7E CORSAIR II

Manufacturer: ESCIERTL

Scale: 1:72nd

Price: £4.95

It was a welcome sight to see more ESCI kits on the shelves in my favourite hobby shops when I bought this new release. The Corsair II is a subject that is dear to me and even though it seems to have been well covered by most kit manufacturers, the prospect of a new approach to this old war horse intrigued me. I must say that this purchase did not disappoint me in the least. It is cleanly moulded in white coloured plastic with all the panel lines very finely engraved in typical ESCI fashion. The clear canopy is moulded in two separate pieces, with a gunsight reflector included, so that you may display your model with the canopy opened or shut.

The construction is simple and straightforward and I encountered no problems whatever. As a matter of note though, this kit forms the basis of three recent ESCI releases and therefore has a degree of commonality with the other two: the A-7B, and the A-7D. This fact has introduced a slight glitch in the shape of an unrequired gun port on the right fuselage half. This port is present on the A-7B but not on the A-7D or E versions. You may choose to fill this with putty and rub down before painting for absolute accuracy.

The two colour schemes included are actually the simplest possible, an overall USN Light Gull Grey. One of the schemes has a tiny matt black anti-glare panel and that can be brush



painted with the greatest of ease. The decals included are up to ESCI's usual excellent standard and they are often reason enough to purchase an ESCI kit of a type that has already been done by another company. The markings are for an aircraft of VA-25 (even

though the instruction sheet claims it to be VA-1131) and one of VA-81, the version I chose to build. A good choice of markings, one east coast squadron and one west coast.

Overall I would recommend this kit to modellers of all experience levels as

it offers any of them something that they can all appreciate. It is also good value as it is mid-priced between the UK offerings and the more expensive Japanese alternative.

J.W. Patterson  
SEPTEMBER 1988



### GRUMMAN EA-6A INTRUDER

Manufacturer: Fujimi

Scale: 1:72nd

Price: £7.99

The EA-6A Intruder electronic countermeasure aircraft (ECM) is a subject that had never had been tackled by a kit manufacturer in any scale in the past. Therefore Fujimi's 1:72nd scale kit is a very welcome arrival on the modelling scene. The kit itself is a product of the current trend in Fujimi's overall strategy to win the hearts and minds of the modelling fraternity at large, particularly those who enjoy modelling naval aircraft. They had not let us down in the case of the EA-6A, but the parts offered were expensive and difficult to find.

Fujimi's overall philosophy to the manufacture of kits has helped us immensely in satisfying the curious needs of our modelling whims. When they

decide to attack a subject for a kit, they do it with a thoroughness that can only inspire admiration.

This effort is no exception and it is as complete and accurate a representation as even the most accomplished nit-picker could desire. I really find this kit difficult to criticise, so about all I can do is try and point the way to help avoid any problems that may creep into its construction.

To begin with, the assembly of the cockpit was a joy. I may comment that as the instruments are moulded in relief so that it is actually easier to paint that detail on a grey background than to use the enclosed transfers. Of course the alternate means would be to rub down all the instrument detail in order that the decal has a flat surface to

adhere to, but I found it much simpler merely to paint the detail on. When finished the cockpit is truly superlative.

After the fuselage halves are fastened together and you are to add the bottom pieces, one should take a great deal of care doing so. All the parts fit well but if you are prone to rushing things a bit, you probably would have to resort to sanding and filling at a later stage. Prudence at this point will save you that effort.

After the wings are mated to the fuselage assembly, the leading edge flap guide rails are prone to be broken off, so exercise caution while handling the model after this point. I would recommend leaving the leading edge flaps off the model and add them to the painted model after painting them separately.

The transfer sheet is a largish affair that, if offered as an accessory, you might expect to pay up to £3.50 for it alone. It offers a choice of four different aircraft and contains the only error I found in the kit. Ha, GOTCHA Fujimi-san! The 'CY' for the USMC aircraft of VMAQ-2 as shown in the first scheme is printed in black instead of white. The box art is correct while the instruction sheet also reflects this error. Sadly it is the most colourful scheme included, though if you just can't live without an EA-6A in this scheme, you can find the white 'CY' on a Micro A-6 sheet or if you have a spare Hasegawa EA-6B kit (Number K14X) lying around, it too has the required white letters.

That's not at all bad. In the end I have written a whole paragraph of criticism of a superb kit and all I've said is that the transfer sheet contained a mini-error. I hope it keeps Fujimi on their toes. As you may have already surmised, I highly recommend this kit and believe it a worthwhile addition to any modeller's collection. Jim Wood

### HEINKEL He70F-2 He70G-1H e170A

Manufacturer: Matchbox

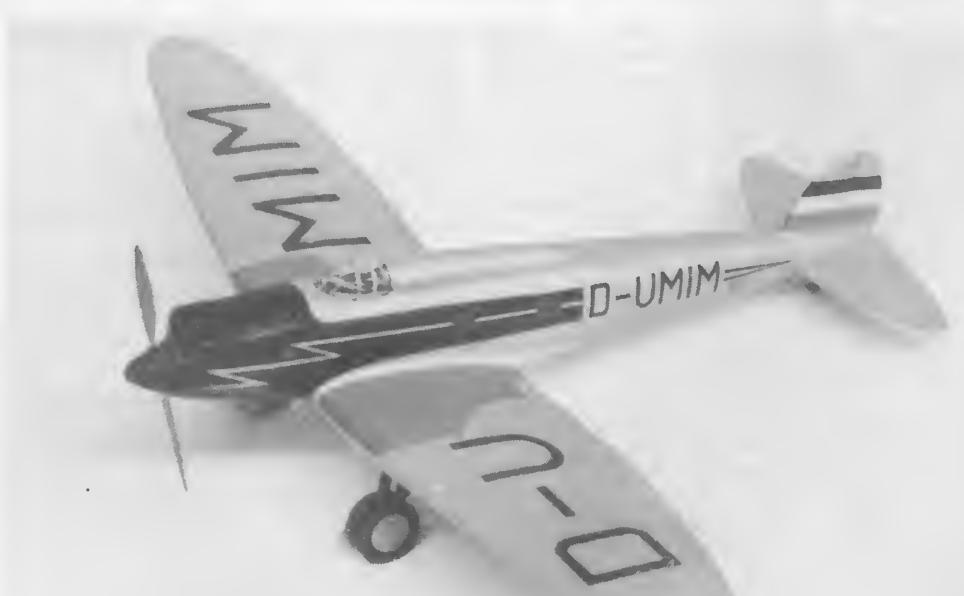
Scale: 1:72

Price: £3.10

The Heinkel 70 was the German answer to the latest US designs of fast single engined transport aircraft that were beginning to appear in Europe during the early 1930s. This sleek, streamlined Ernst Heinkel product with its attractive elliptical wing has been said to have inspired the later most aesthetic British fighter, the legendary Spitfire. The He 70 was finally developed into a light bomber and versions saw limited use in the Spanish Civil War. Twenty further examples were produced as the He170A with the Gnome-Rhone 14 cylinder radial installed.

All three of the above mentioned versions are possible with this new and innovative Matchbox kit which contains a large well printed transfer sheet with three choices of colour schemes included. The kit is moulded in three different coloured plastic sections with optional clear canopies.

This kit is a departure from the now apparently obsolete Matchbox practise of deep trench-like panel lines that were so prevalent in past issues. The surface detail, which is represented by both raised and engraved lines is very good. The parts, including the various optional bits fit reasonably well and I managed to get by with a minimum



of filling. The lower wing join presented the only really marginal fit and that was easily overcome with just a bit of extra effort.

I didn't have any suitable reference drawings to check the overall accuracy of this kit, but if I did, I would suspect that if any problem was pre-

sent it would be in the area of the canopy. When compared to photographs it appears to be a trifle undersized though not enough to warrant any modification. On the transport version the clear portion of the transfer sheet can be used as the windows in lieu of the included clear

parts if desired. This will save you the trouble of masking the windows off when painting.

The kit also contains complete interior parts and overall I would rate it as an excellent choice of subject and good value for money.

Simon Page



#### PORSCHE 962

**Manufacturer:** Heller  
**Scale:** 1:43  
**Price:** £1.99

AS this kit has been released in two identical versions with differing transfers, I shall review them both together. The Heller company is to be admired for producing plastic kits of car models in this popular collectors scale. Most followers of the plastic car scene adhere to the more prevalent

1:24th or 1:25th scale offerings. The true collectors scale is, however, 1:43! The only trouble is that the 'true collectors' have not yet discovered the advantages of the injection moulded plastic kits that are now on the market.

But I digress, these two Heller kits are little jewels. They are very accurate representations of the world's most successful racing machine. What's more, they are the easiest kits in the world to build at a price of about a tenth of their metal or resin counterparts. The manner in which you decide to paint them is probably going to

reflect the experience level of the modeller concerned, but if you require a tip, refer to the article earlier in this issue.

Another tip I can offer if you should become 'hooked on Porsches', is that to increase the size of your collection you may purchase additional transfers for a variety of other machines from the following source: Grand Prix Models, 167 Watling Street, Radlett, Telephone 09276 2828. Tell them Franco sent you. **Franco Ferroni**

#### M-1E1 ABRAMS TANK

**Manufacturer:** Hasegawa  
**Scale:** 1:72nd  
**Price:** £3.49

When I first saw that Hasegawa had released a 1:72nd scale Abrams tank at about the same time that ESCI had, I was convinced that they were from the same mould. In the past, these two manufacturers had in fact shared some releases and this seemed a logical thought. Upon the subsequent purchase of the Hasegawa kit, I found that the two Abrams were not similar as they differed in design and engineering. This is the end may have to serve as some sort of self-justification for spending the somewhat higher price of the Japanese offering. Curiosity killed the cat or at least put a dent in his wallet.

The M-1E1 differs from the earlier M-1 versions in that it has the German designed 120mm smooth bore gun of the NATO forces rather than the US 105mm rifled weapon. There are also some other detail changes that were included in this 1985 production version such as additional armour plating in the turret.

**Mark Panzer**



#### M60 A1 PATTON TANK

**Manufacturer:** ESCI/ERTL  
**Scale:** 1:72nd  
**Price:** £1.75

SINCE the M60 series tank was the backbone of US Army's armoured divisions for almost 25 years, it is surprising that so little attention has been devoted to it as a subject of plastic kits. ESCI's new release of the M60 A1 Patton is the beginning of a new series of Pattons that we shall see as the year continues. It is a welcome addition to the collections of those who like to possess our own personal histories of armour in miniature.

The Patton series began with the M46 in the late 1940s and was developed into the basic M60 design in the late 1950s. It has served as the main battle tank of the US forces until the present time as it is gradually being replaced in front line units with the M1

Abrams turbine powered tank. An excellent source of reference for the Patton is the Squadron/Signal Publications, Armour, Number 23.

The kit is simple to assemble though I found the bin at the back of the turret even more troublesome than the Merkava reviewed earlier. Exercise care in the assembly of this part and the rest of the kit goes together in a hurry. I painted mine in the colours as indicated on the instruction sheet, which incidentally, I'm sure by no coincidence are the same as the painting on the cover of the above mentioned reference book. The transfers are also for the same vehicle and are well printed. This is an excellent little kit and the balance of this series will also be integrated into my now growing 1:72nd scale armour collection.

**Mark Panzer**

Since the writing of this review, ESCI/ERTL have released two more Patton versions, including the M60 'Starship'. These new kits can form the basis of a mini collection of US Army tanks.



# THE O GROUP

by Phillip Greenwood

In British army terminology, an 'O' Group is a meeting of officers and soldiers to discuss the latest battlefield intelligence reports. With this first new issue of *Airfix Magazine* we are establishing this monthly column in order to keep you up to date with the latest information about new products for the military modeller from both the major companies and the cottage industries.

To begin Sovereign, well known for its high quality 1:35 resin armoured car kits are following up their recent Daimler Mk I with a Humber Mk III. This is an all new kit with the master designed and made by George Moore. The Humber was widely used during World War 2 and for a long time afterwards. The possibilities for colours and markings are quite extensive.

K&K Castings will be releasing a 1:35 Sherman M-4A2 hull in resin. This is the late model with the 45 degree front plate and is designed to be used with the Italeri M-4A1 76(w) kit. The M-4A2 was used in large numbers by the Red Army during the last year of the war. K&K have several other kits in the pipeline and they will be reported in due course.

ED Models will soon be printing a selection of their 1:72nd scale military transfers to 1:35 as the interest in the larger scale is growing.

After receiving some unfavourable reviews of their M-4 composite hull, Verlinden are reported to be making an improved master. This company will be releasing both the Sherman Mk Ic Firefly and the USMC M-4 'wading' with these new parts. Several other Sherman variants are said to be in the development stage.

**Miniature Armour Conversions** 'early type' M4 Sherman hull with turret mated to its kit base.



Sovereign's fine 1:35th scale resin Daimler Mk.I armoured car.



Accurate Armour's 1:35th scale Cromwell Mk.IV resplendent with all its 57 parts.

interior and contains excellent documentation. It really can be considered a bargain at £31. Derek Hansen of Accurate Armour will be tackling the CVR(T) Scorpion/Scimitar next.

Miniature Armour Conversions are offering a resin 'early type' M-4 Sherman hull and turret conversion in 1:35. These parts are supplied to enable you to make a 'mid-production' Sherman of 1943 vintage using one of the currently available plastic Shermans as a basis. They cost £10.99 and £8.99 respectively.

To obtain any of the above speciality items, see the address list I have included:

**Accurate Armour**, 14 Seath Avenue, Langbank, Strathclyde, Scotland

**ED Models**, 64 Stratford Road, Shirley, Solihull, B90 3LP

**Verlinden**, Historex Agents, 3 Castle Street, Dover, CT16 1QJ

**Wings and Wheels**, Mail Order Department, 21 Brampton Court, Bowerhill, Melksham, Wilts, SN12 6TH

**Mil Slides** 106 Selsden Road, South Croydon, Surrey, CR2 6PF

## Bases and cases



## SCENIC BASES FOR WATERLINE SHIPS

Bruce Dennis shows how to display nautical models in their proper element

DISPLAYING a small ship model in a simulated seascape or harbour can be very impressive and draw admiration from otherwise unimpressed viewers. Modellers can stamp individuality on their finished work by placing it in a unique setting chosen to bring out the character in the subject, or they can distract attention from an otherwise good model by using an indifferent or even bad method of display.

The most natural setting for a ship is in the water and we will now look at a few easy ways of achieving a realistic waterscape for your models with minimal effort and expense. I will now explain in detail the process which gives me most success, and despite the unorthodox approach, I assure you it is easy and surprisingly quick. Follow the steps below to achieve a unique method for showing off your best efforts.



A vertical view of the Japanese submarine I-15 circa 1944. It could almost have been taken from a Navy reconnaissance aircraft. The simulated sea surface almost appears to be in motion.

SEPTEMBER 1988

### Stage 1

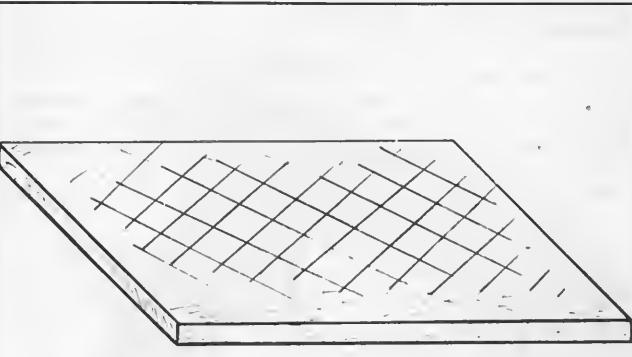
Firstly, decide before you start work on the base which water effect you wish to depict. Maybe choose a harbour (still water), a calm sea, or a stormy ocean and then get an idea of what it really looks like. Look at photos of real ships of the type you are modelling. Huge rolling waves or hurricanes aren't really common despite Hollywood myths, so gently rolling waves or calm water is usually 'correct' and realistic.

### Stage 2:

Decide the size of the base and how the ship will be positioned on it. Often a narrow base with the model centrally located suits the subject and the storage space available, but interest can be added by using a larger base and mounting the model at an angle. The decision is entirely yours, so place the ship's hull on a scrap of wood or card and try a few different poses. Decide on the position of the ship's wake, and if necessary sketch the arrangement.

### Stage 3:

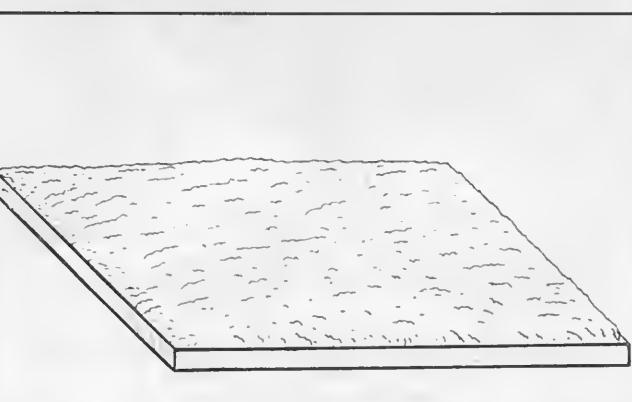
Now that you have a good idea of what the finished effect will be, choose a piece of wood for the base and cut it to size. You can use ply, offcuts of a plank, or just about anything else that you are satisfied will not warp. I am partial to half inch chipboard or medium density fibreboard (MDF), but please yourself.



1. Score the base with criss-crossed lines to give the Polyfilla a 'key'.

### Stage 4:

Give the surface of the wood a 'key' by scoring lines in a cross-hatch pattern overall. Prepare some Polyfilla or similar product. Small tubs of pre-mixed Polyfilla are available but you can mix your own.



2. Cover the base completely with Polyfilla to a fairly constant thickness.

### Stage 5:

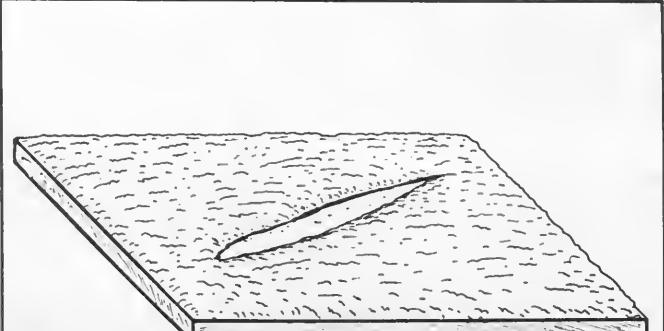
Spread Polyfilla evenly over the wood, ensuring that you work it into the scored surface. For best results put on one thin coat which will harden in an hour or so and then follow it with a thick layer of DAS Pronto (self-hardening modelling clay). It is this layer you will work on to get the water effect, so follow the next steps quickly before the DAS starts to harden.

### Stage 6:

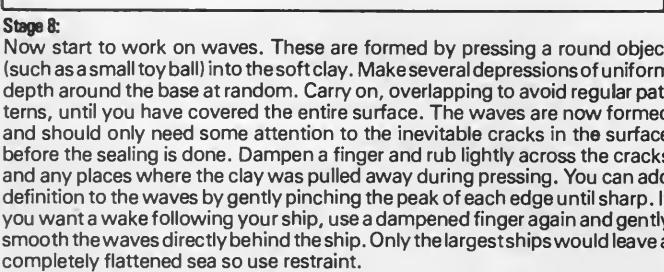
Tamp the top layer down lightly with a flat piece of plastic dampened to keep it from sticking. This gives you a flat uniform surface. If there are any major depressions or cracks, deal with these now. Appearance doesn't matter at this stage so don't be too concerned.

### Stage 7:

Place the hull of your ship on the soft DAS and press down, then remove. This will leave a perfect outline. Remove the soft DAS from the area marked by the hull and offer the ship to check its fit. This can be done before you begin construction of the model using just the kit hull, or with a completed model that you wish to display in a new way.

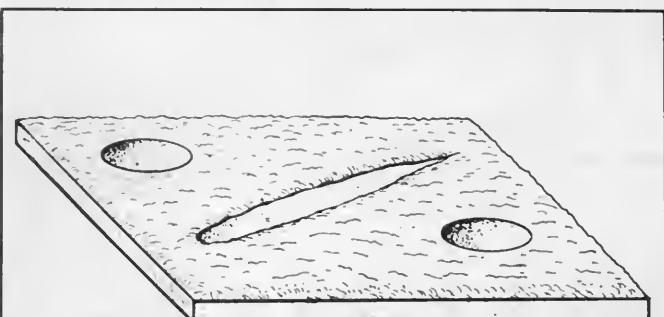


3. The base after the addition of the hull's impression.

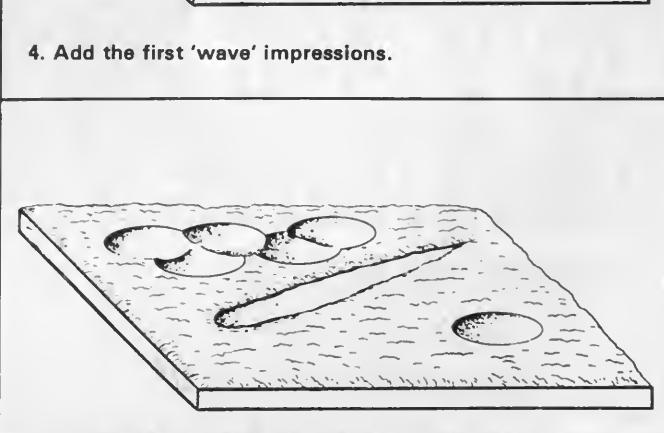


Stage 8:

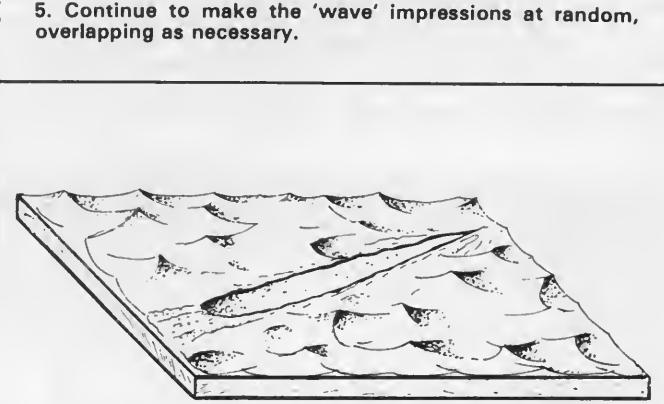
Now start to work on waves. These are formed by pressing a round object (such as a small toy ball) into the soft clay. Make several depressions of uniform depth around the base at random. Carry on, overlapping to avoid regular patterns, until you have covered the entire surface. The waves are now formed and should only need some attention to the inevitable cracks in the surface before the sealing is done. Dampen a finger and rub lightly across the cracks and any places where the clay was pulled away during pressing. You can add definition to the waves by gently pinching the peak of each edge until sharp. If you want a wake following your ship, use a dampened finger again and gently smooth the waves directly behind the ship. Only the largest ships would leave a completely flattened sea so use restraint.



4. Add the first 'wave' impressions.



5. Continue to make the 'wave' impressions at random, overlapping as necessary.



6. Hopefully, all your efforts should resemble this sketch.

**Stage 9:**  
Tidy up the cutout for the hull and allow to dry.

**Stage 10:**  
It is necessary to seal the porous surface. The easiest way is to make a 5050 mix of Unibond and water and brush a thin coat over the entire area. Allow to dry.

**Stage 11:**  
Using a shallow dish, mix some dark green/blue acrylic paint (Tamiya IJN Green is ideal) 5050 with water and then stir in a little Unibond. About 20-25 per cent Unibond should give the right thickness. Using a tissue or cloth, dab this mixture quickly and generously onto the primed surface and it suddenly begins to look like a sea. Two or three coats like this will be necessary and each will look 'wetter' than the one before. Now dab a few drops of undiluted paint directly onto the lowest parts of the waves in the valley between crests and blend in with more of the gluey mixture. Your display stand will begin to come to life at this stage.

**Stage 12:**  
Offer the hull to the opening previously cut for it and ensure a good fit by carefully carving away any glue that has accumulated there. It is now time to permanently affix the hull in place. Superglue may be the best adhesive for this job while Unibond would do just as good a job although slower. Do not worry about a small gap around the ship; we will deal with it next. You have two choices: (a) a ship at anchor or dead in the water and (b) a ship under way.

**Stage 13:**  
(a) If your ship is to appear stationary in the water, try to keep the gap around the hull to a minimum. Run some of the paint/glue mixture into this gap until filled and allow to dry. If the gap reappears as the glue settles or shrinks, just put more in and top up to the correct level. When satisfied, blend in to the surrounding area by diluting the mixture further with water and applying another coat or two to the whole surface. (b) A ship moving through the water leaves a wake behind it and disturbs the water at the bows and down the sides of the hull. This is easy to represent authentically with paint and Unibond. Mix some light grey acrylic paint (Tamiya IJN Grey) into some undiluted Unibond and fill the gap as described earlier using an expendable brush or cocktail stick. When the gap is filled and shows no sign of shrinking or settling further, you will see a sharp contrast between the 'white' water and the previously painted greens. Add a small amount of the green used for the sea to the grey mixture, use this to paint the ship's wake directly onto the sea behind the hull. Avoid straight lines, dab it on sparingly with a tissue and build up the effect as you see how the first efforts dry. Just wait until it is firm, past the tacky stage, and you can apply the next layer. Each layer builds on the visual effect of the previous one and once the wake is formed, you can dilute the paint/glue mixture drastically and 'wash' on a final coat. Study photographs of your subject or similar ships and establish what kind (if any) of bow wave suits your model. These can vary considerably and once you know what you should reproduce, work from the bows back with the diluted grey/green glue mix. Avoid getting any on the model.

**Stage 14:**  
Finally let's give a bit of attention to the waves to finish the display off. Whitecaps (and perhaps a bit of the bow wave) can be portrayed easily by painting just the tips of only a few waves with matt white acrylics. Be very sparing with the white doing this as your realistic seascape will lose all subtlety if too much is applied. Highlighting the edges and tops of waves with a thin line of grey/green glue is very attractive and adds depth, but once again, do not over do it.

There you have a complete guide to the seascape technique I favour. Experiment and vary to suit your own favourite methods. For example, you may prefer to use five-minute white wood glue such as Evostick instead of Unibond. These glues work as well and are quicker to set, but generally they cost more and may have no advantage other than speed. All of these various adhesives are generally available at your local DIY shop and the Tamiya acrylic paints can be obtained at most well supplied hobby shops. If you are not going to keep your model in a display case, keep it under cover for the first few days at least, as the 'gluey' surface is most susceptible to dust until it has cured. With practice, this technique can be developed to do more adventurous projects such as simulating stormy seas, beaches and shallow water. My experience is that the more dramatic effects are not only harder to make convincingly but can also distract from the model they are meant to enhance. By all means try modelling a hurricane if you want to but practice on the easier calm seas first.



**Skybirds '86**  
MODEL ENGINEERS

WISHES SUCCESS TO THE NEW  
AIRFIX MAGAZINE —

We offer four 1:72nd Scale kits of one of the most elegant piston engined aircraft ever designed — the de Havilland Hornet Mk.F.1 and F.3 and Sea Hornet F.20 and NF.21.

These kits include up to 22 limited-run injection moulded parts, up to 28 intricate castings, pre-cut vacuform canopy and decals. They are in small quantity production and will normally only be available by direct mail order.

PRICES: Hornet F.1 or F.3 or Sea Hornet F.20 £10.50 (US\$20)  
Sea Hornet NF.21 £11.50 (US\$22.00)

Postage and handling: UK plus 80p, Europe plus £1.30  
World (Airmail) plus £2.00 (US\$4.00)

Payment in sterling or US dollar cheques only please.

For further information send SAE or 2 IRCs or  
Telephone Michael Eacock on (0935) 872182.  
SKYBIRDS '86, ORCHARD HOUSE, CHETNOLE,  
SHERBORNE, DORSET DT9 6PE

WE WILL BE INTRODUCING A NEW KIT  
AT IPMS STONELEIGH

**PHOTO ETCHED SHIP FITTINGS**

LOREN PERRY'S GOLD MEDAL FITTINGS now available in the UK, 1:700th, 1:600th, 1:400th, 1:350th and 1/200th scale.  
NICHIMO 1:200th YAMATO £127.50 POST FREE. Other Nichimo and Fujimi ship kits also available post free.  
Hardwood display bases and brass name plates off the shelf for some popular kits, or made to order at no extra cost.  
Second hand and discontinued plastic ship kits bought and sold.

LOREN PERRY'S MARSDEN STEEL RUNWAY MATTING (P.S.P.)  
Perforated steel runway segments that link together like the real thing.  
Relief etched for extra detail 1:72nd, 1:48th and 1:32nd scales IDEAL FOR AIRCRAFT AND A.F.V. DIORAMAS.

Send SAE for lists to:  
WHITE ENSIGN MODELS, 35 Madeline Place, Chelmsford, Essex CM1 4XD. Telephone (0245) 441480  
Callers by appointment please

**MODELLERS ROADSHOW**  
NOW IN PREPARATION

Trade Enquiries to:  
**Richard Beeley**  
**MODELLERS ROADSHOW LTD,**  
28 Milton Street,  
Maltby,  
South Yorkshire S66 8NE  
or Telephone (0709) 814772

# International Plastic Modellers Society

## National Championships and Modelling Weekend



**THE NATIONAL AGRICULTURAL CENTRE STONELEIGH WARWICKSHIRE**  
4 miles from Coventry on the A444  
Open to the Public Sat 12-5pm Sun 10-5pm  
Admission £1.00

on Sat 12th- Sun 13th November 1988

also including OPEN COMPETITION

SEE SEPARATE NOTICE

Sponsored by  
**AIRFIX** **tahs** The Aviation Hobby Shop



# THE 'PICK-UP' MACHINE

BY RICHARD PARKER

In my opinion, all the best truck kit conversions have a strong basis in practicality. Take the subject of this article for instance. It is a DAF 3300 6x4 artic with heavy duty crane arm fitted behind the cab. A vehicle of this type is used for 'self loading and unloading' 20ft or 30ft containers on and off the trailer at sites where permanent craneage isn't available or would cost too much to hire - for example once a week contract deliveries to a small firm on an industrial estate. With a flatbed trailer instead of a 'skeletal', the same truck could also move heavy machinery and components, unloading them easily at their destination. Although I've used a DAF 3300 for this article, the same idea applies equally well to any other European or American 6x4 or 6x2 artic.



With the jacks extended, the machine is ready for action.

#### The Model.

When it comes to 1:24th scale European truck kits, the only manufacturer is, of course, Italeri. Generally speaking, these kits are pretty good, but there are times when the real 'seeker after truck model realism' has to work hard when Italeri provide a part that - while it applies to some other truck in the DAF or Scania or whatever list - doesn't go with the replica supposedly in the box. Stick with me and you'll see what I mean.

#### Engine.

This needs careful assembly as there are very few locating points for all the turbocharger and intercooler pipes. Painting is best done after the basic 'block' has been made up but before all the pipes are added. DAF engines are matt gold (two or three coats of Humbrol MetalCote gold left unpolished) with matt black radiator grille, matt black fan belt and slightly shiny black gearbox. The exhaust pipe is matt 'aluminium' (Humbrol 56) from the junction with the turbocharger onwards.

#### Chassis.

Careful assembly and even more careful painting is the order of the day here. For example, make up the rear axles and paint them, their springs, 'vee' shaped tie bars and the chassis before putting all these sub-assemblies together into one great piece. As provided, the kit

The finished project makes a very impressive sight indeed, especially when displayed with a 1:24 car model.

is presumably intended to represent a version only available in mainland Europe. Most 6x4 DAFs in the UK are 'heavy haulage' - i.e. over 50 tonnes - versions, with a shallow frame on top of the main chassis. Any modeller wanting this would have to provide the frame from scratch. As my model would only 'operate' up to the legal ordinary limit of 38 tonnes, I didn't bother.

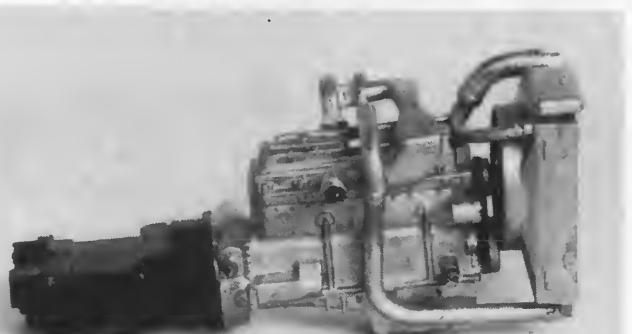
#### Crane Arm.

This comes from Italeri's Truck Conversion Set, with some modifications. As provided, only one of the two telescopic sections extends. I supplied the missing length by cutting off the hook and end collar, fabricating a rectangular plastic beam from Tamiya square beam and replacing the hydraulic rams with Contrail Rod and Tube. The crane now extends properly (yes, a 'working' model!) The stabilizer feet had their ram sections replaced with greater diameter Tamiya rod and again 'work' properly.

As anyone who has ever looked at one of these crane arms must know, there are long lengths of black flexible hydraulic hose linking each arm/hydraulic ram. Italeri provides some locating pegs for these and the others can be added by drilling shallow holes and fitting short protruding lengths of fine plastic rod. The hoses come from the spares box - in my case fine, soft, black Tamiya tube of the type provided in motorbike kits. I was actually given my tubing (two six foot lengths in a sachet with tweezers) so it might be available separately. Try asking nicely at a friendly Tamiya stockist.

Once finished and painted (orange, with 'chrome' hydraulic rams - use Humbrol Silver Fox 11 for all bright silver) the completed crane with shortened subframe goes on the DAF chassis over the gearbox.

The completed engine assembly after painting.



#### Cab.

Several options here. Italeri do two versions - the 'Dutchman Supertruck' with a totally inappropriate (and never used on any Dutch DAF I've ever seen) 'pimple' air deflector. They also do a 'Spacecab' 3600 ATi which is perfect if the side air deflectors (parts 204 and 205) are left off. However, I used the sadly missed, deleted Revell DAF 2800 flat roofed cab. Apart from the roof, this kit was simply the Italeri model in a Revell box, with Revell instructions and transfers. Just because it's now deleted doesn't mean it might not be available somewhere. Keep an eye open for 'out-of-the-way' model shops, tourist resort 'gift shops', model shows etc. The same goes for any deleted kit you've set your heart on getting.

Inside the cab, the kit seats and top bunk are 'hollow' so they need backing with 15thou plastic card. The passenger seat should also have a headrest and armrests. The colours are 'light tan/imitation leather'. I used Humbrol 71 Oak for the trim panels, Humbrol 62 Leather buffed up to a nice sheen with a soft cloth for the bunks, seats and dashboard, and Coal Black for the floor, gear lever, steering wheel, door handles, grab handles etc. The parts of the doors and window surrounds not covered by trim panels are metal on the real truck, and remain in whatever basic colour DAF supplied the original cab. Sometimes this is startlingly different to the exterior colour scheme applied for the owner: red interior metal with blue or green or black outside, for instance. However, one DAF colour is white and if you're using the Spacecab kit, which comes in white plastic, you can leave it that colour and use a paint job.

The floor is not an easy fit. The locating points at the back are ok but the one at the front is far too low. Remedy? Trim off the side lugs on the floor, glue the floor into the cab shell at the back, get a scrap of plastic card or roughly squared off sprue 3.5mm deep and trap it between the floor from lug and the top of the floor mounting point on the cab shell front panel. This lifts the front of the floor inside the cab, the dashboard is now visible from outside the windscreen and the whole cab sits properly on the chassis, meeting the bumper and tilting properly.

Before adding my cab roof, I fitted curtains over the side and rear windows (lengths of dark red 'bias binding' sewing tape secured along their top edges with UHU glue) while the 'stickers' go on later from outside. The colour scheme on any truck model is vitally important, and in this case it was carefully designed to exploit all the exterior trim panels and changes of shape to give the cab a clean, bright, attractive but slightly aggressive look - tough, reliable and capable! The sort of image any owner/operator or small fleet should go for. Gloss bright red up to the top of the wheel arch/cab steps (to match the bright red chassis) then bright yellow up to the waistline 'belt' moulding and ivory (Humbrol 41) above that. The cab back is yellow and there is a vertical yellow 'wraparound' stripe behind the cab side windows. Both front grille panels are red. To paint black plastic red, first apply two or three coats of satin white. The actual moulded grid grille squares are carefully touched in with matt black when the red has thoroughly dried. The cab steps, normally matt aluminium, are satin black. The chassis is decorated with a yellow front bumper and ivory wheel hubs.

#### Accessories.

All the best truck kits need at least some of these. At the rear of the chassis, running from the top of the rear cross member to the edge of the 'fifth wheel' coupling plate are the vitally important 'hitch-up' ramps. As the truck reverses under a trailer during coupling up - both in real life and on the model - these ramps lift the front edge of the trailer so it can slide onto the 'fifth wheel'. There are a number of ways of making these - Plastruct, short lengths of brass beam etc, but I used strips of 20thou plastic card glued to make a 'T' shaped girder and supported at the 'fifth wheel' by a spare cross member from another kit.

Airlines/electrical lead. Again something no model must be without. British trucks have three airlines - red, blue and yellow. European rigs, as well as newer British ones, have the two line system - red and yellow. I use the coloured inner wires from four core tinned wire, coiled round a needlefile (the round, untapered section meant to go into a wooden handle, but any 1/4 in diameter rod would do). The connecting valves can be made from tiny lengths of narrow aluminium tube secured with superglue. The black electrical lead is made the same way but coiled round a pin to give tighter curls. All four were then secured to the rear cross member of the crane sub frame.



The deck plate was made from a scratchbuilt plastic card frame and two rectangles of metal mesh cut from a frying pan splash guard (try your local hardware shop for this - usually cheaper than a specialist kitchen equipment retailer!). Once the frame is painted, the mesh can be attached with epoxy, superglue or even UHU.

The roof signboard is to be found in the Italeri Truck Accessories Set (along with loads of other useful items). As moulded, it is meant for a Mercedes Benz, but by the time the base has been carved and filed flat, it is exactly 'DAF' sized. From there it is just a matter of carefully cutting shallow grooves for any roof ribs. And the window 'stickers'? All transfers, applied on the outside right now. Most are to be found in the Accessories Set sheet, while the 'GB' and other country indication items come with the kit. And that, as they say, is that. Finished. One very smart, very effective looking truck. Not an everyday sight on the roads but not unknown either. As a kit conversion it is also slightly rare, but easy enough to 'personalise'. If you don't want a DAF, how about a Scania with crane arm, or a Freightliner, or a Kenworth? Also, if it looks expensive, well all the materials needed - Conversion Set, Accessories Set etc - have enough parts or materials left over to improve several more trucks. So why not have a go?





## BACK TO BASICS

# JOINT LINES AND RUBBING DOWN

Following the new Airfix Magazine's intended objective of trying to help the younger or less experienced modeller I have gone right back to basics for this first article and will be dealing with the elementary subject of rubbing down joint lines and the materials most suitably available for this task.

Alan W. Hall

It is surprising that there are many younger modellers who rarely take the trouble to clean up a model before painting and as this is a relatively simple task but one that is important to getting a satisfactory end result I feel that some emphasis ought to be laid on the subject and methods used explained in some detail.

With the accuracy of present day mould makers, particularly in Japan, there is often little need to rub down a joint line but there's always the older kit and more often than not the Japanese ones can do with some minor adjustments here and there if perfection is the aim.

As the filling comes before rubbing down I will deal with the methods I use in this connection. It must always be stressed in

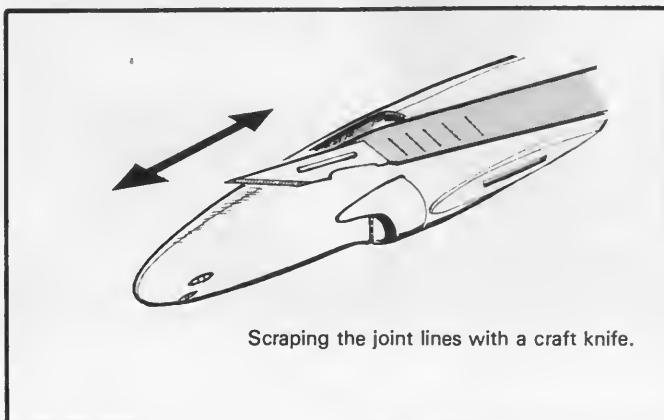
these articles that the methods given are those used by the author and ones which he has found to be successful. There will probably be other methods and ideas available but to list them all would probably become boring and counter productive.

Way back before plastic modelling really took off the scale modeller had little choice of filler apart from what was called 'plastic wood'. This was usually a mixture of fine sawdust and an adhesive which when dry formed a hard finish suitable for sanding but had the disadvantage that it could not be used for anything other than rather large areas. Modellers needed something better than this and the Americans can claim to be the rightful originators of fillers as we know them today. They found that materials used

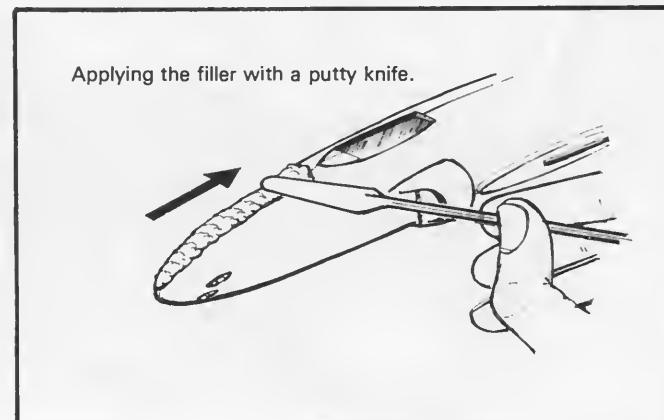
for customising cars and for filling small holes and dents in metal surfaces were ideal for modelling as well. The name Greenstuff came into prominence as being one of the first and I remember buying a giant tube of this material in Toronto, Canada in the early 1960s at a price that would stagger the present day modeller because it was so cheap. My original tube was less than the combined price of a dozen present day smaller sized tubes!

But Greenstuff did the job and it was soon found that the smallest imperfection in the model's surface could be patched up with this material. It dried quickly, went really hard and could be rubbed down with wet and dry paper easily.

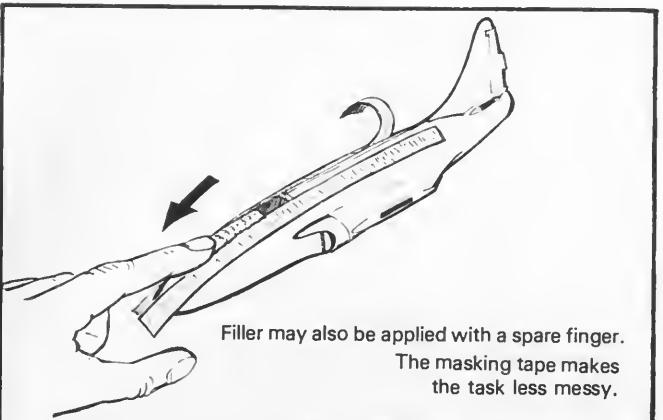
But Greenstuff had the disadvantage, as



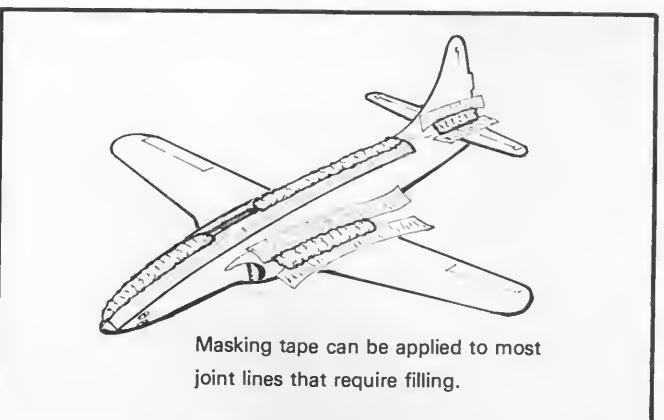
Scraping the joint lines with a craft knife.



Applying the filler with a putty knife.



Filler may also be applied with a spare finger. The masking tape makes the task less messy.



Masking tape can be applied to most joint lines that require filling.

did all other early fillers for the model trade of attacking the plastic if used in any large quantity. I remember trying to fill the inside of an early vacuform model that defied my attention because the moulding had drawn so thinly that I needed to reinforce the thinnest parts. The result was a crumpled mess when I came to look at it the following morning. This then is the first tip. Watch out that the filler you buy can be used for either large or small areas of filling, otherwise you will be in a bad mood for the rest of the week! Most contemporary materials recognise the problem and the chemical formula has been modified to take this into account.

### VARIOUS MATERIALS

The market for fillers has obviously grown over the years as modellers have become more sophisticated in their work and standards have progressed. In the main they can be divided into two types: the two-part mixture and the straight-out-of-the-tube variety. Again generally speaking the latter are made and marketed by such well known names as Revell, Humbrol and the ubiquitous Greenstuff though now marketed by one of the US direct mail suppliers. The two-part mix has centred round a material called Milliput though doubtless there are others that do the job equally as well.

I find that the tool box ought to contain both. The Milliput can be used for small filling jobs but is wasteful as it has to be pre-mixed before application, the tube variety can be used in very small amounts and applied exactly where needed without waste. Both have their practical uses as I am sure you can see.

Personally I prefer the Revell variety of the tube offerings as this seems to dry harder and has a finer texture than any of the others I have tried. Milliput is almost universal so the choice is narrower.

The more filler used, the more coarse the grade of wet'n'dry required.



SEPTEMBER 1988

How is filler applied? here personal choice is a deciding factor but I find that my old paper knife that has been in the family for generations is the best sort of tool as it has a fine tip and is flexible enough. Cut down knives from the kitchen, spatulas from other sources and even finger application are all methods than can be used. The object is to get the minimum amount of filler into the right place and sufficient to fill the crack or uneven surface as necessary. Apply too much and it takes a long time to dry and an equally long time to rub down with the possibility that more surface detail will be removed than necessary in the process.

It is essential to let whatever filler you are using dry out properly. When applied in small quantities the drying time is possibly one to two hours but if a thicker layer is needed it is always adviseable to allow this an overnight curing time before attempting the rubbing down process. Joint lines where the obvious need for filler can be applied need to be filled carefully. Too much filler and the area around the joint line will lose all panel line or rivet detail when you come to clean up. A method often used is to stick masking tape over the sensitive detail so that filler cannot touch it. Rubbing down afterwards can be conducted with the tape in place and the detail thus preserved.

### CLEANING UP

The most obvious place for cleaning up operations is the joint line that appears on the top line of the fuselage when dealing with an aircraft model. At the same time the joint between the wings and fuselage often gives a problem and there may be other points such as the addition of accessories and underwing stores that leave an ugly gap unless something is done about them.

In the case of a fuselage joint line I often start by scraping down the offending dissimilarity with a knife blade held at right

angles to the surface. A Stanley knife blade is the best for this as it is strong and sharp enough to do the job quickly. But you will certainly lose the surface detail if you are not careful and I always do the minimum in this instance. In any case the knife blade will only remove the most obvious discrepancies and if not used with care can also make indentations in the plastic surface that will in themselves have to be scraped down at some later stage.

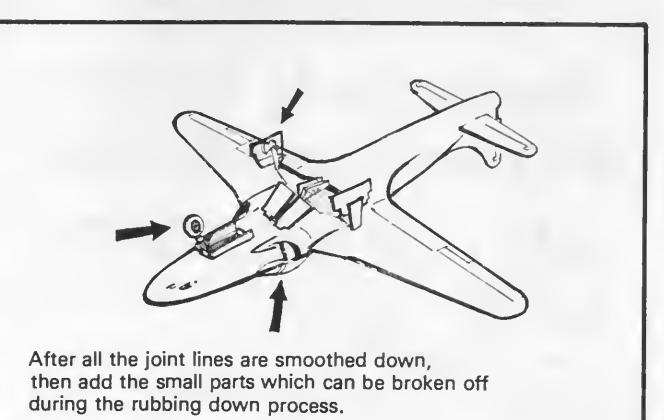
It is at this stage that the filler is applied to the main points needed cleaning up and also to the smaller ones such as the dimples left by the moulding process. The model may look something of a mess at this juncture as the scraping and filling can distract from the neat lines that the model had originally. But not to worry for the subsequent cleaning up will remove all those rough surfaces and return the fuselage and wings to their pristine shape without any of the ugly joint lines left by the earlier construction work.

Once again a word of warning about leaving the filler to dry out thoroughly for there's many a time I have been impatient and started rubbing down only to find the undersurface still unhardened and an even worse mess result. If this happens stop immediately and leave the model to dry out thoroughly followed by a further application of filler in small quantities to patch up.

### ABBRASIVES

In the days of plastic wood we used various grades of fine sandpaper but since then the invention of plastic fillers such as Greenstuff or Milliput the use of wet and dry paper has become almost universal as far as the plastic modeller is concerned. But believe it or not I have met modellers who have in all innocence asked me what wet and dry paper is and where they can buy some.

There are in my experience about five grades of wet and dry paper which can be



After all the joint lines are smoothed down, then add the small parts which can be broken off during the rubbing down process.

## BACK TO BASICS

purchased at almost all ironmongers shops. Ask to see what they have available and select three grades, very fine, medium and coarse for your work. The sheets cost about 70p each and measure about 12 inches square. They all have numbers but I would not worry about these at the beginners stage, you'll know what you want immediately you see it.

Wet and dry has, as the name implies a double action. It can be used wet by soaking it in water or dry as the requirement demands. Most people use the wet method as this is the best as far as plastic is concerned. The dry action can be used on wood or absorbant surfaces where water will otherwise damage the base material.

I keep an old pudding plate in which I have a ready supply of water. This plate also gets used for soaking water slide transfers as well, but that's another story. Cut the wet and dry paper into strips say two inches wide depending on the nature of the work you want to do. Immerse these one at a time in the water and then use a gentle rubbing down action on the filler or plastic you intend to work on. The wet and dry paper will produce a paste which is in effect the material you are cutting away with the rubbing down action. Occasionally this can be wiped away with a piece of old rag or a paper tissue to keep the model clean up operation. The water in the paste soon evaporates in the warmth of the workshop and although you have wiped most of it away with the rag there is always a residue which I remove, especially before painting, with a large soft paint brush flicked over the surface.

### ALTERNATIVES

Depending on the amount of filler being used you may require some rough action to get a new shape carefully completed. In this instance the Stanley knife blade can be used for rough shaping but files are also often necessary. The joint line between a wing and fuselage can be a problem in instances of this nature as it is often too small to get the finger in and even though you may roll up the wet and dry paper into a cylinder shape the sharp angles that may be required elude even the finest rubbing down. Files can frequently be used to complete this operation but I've found another tool which has become standard equipment in most modellers equipment. This is the Flexifile. Again an American invention it is imported into England by Aeroclub Models of Silverwood Avenue, Ravenshead, Nottingham NG15 9BU and costs 3.95 complete with spare sanding strips. The refills are 99p per pack.

Flexifile is such a simple invention it is surprising that nobody thought about it before a couple of years ago when the first ones came on the market. It consists of a 'U' shaped piece of flexible metal the arms of which have a thin strip of sanding down material stretched between them. It is ideal for reaching into those difficult places that the ordinary wet and dry paper cannot reach.

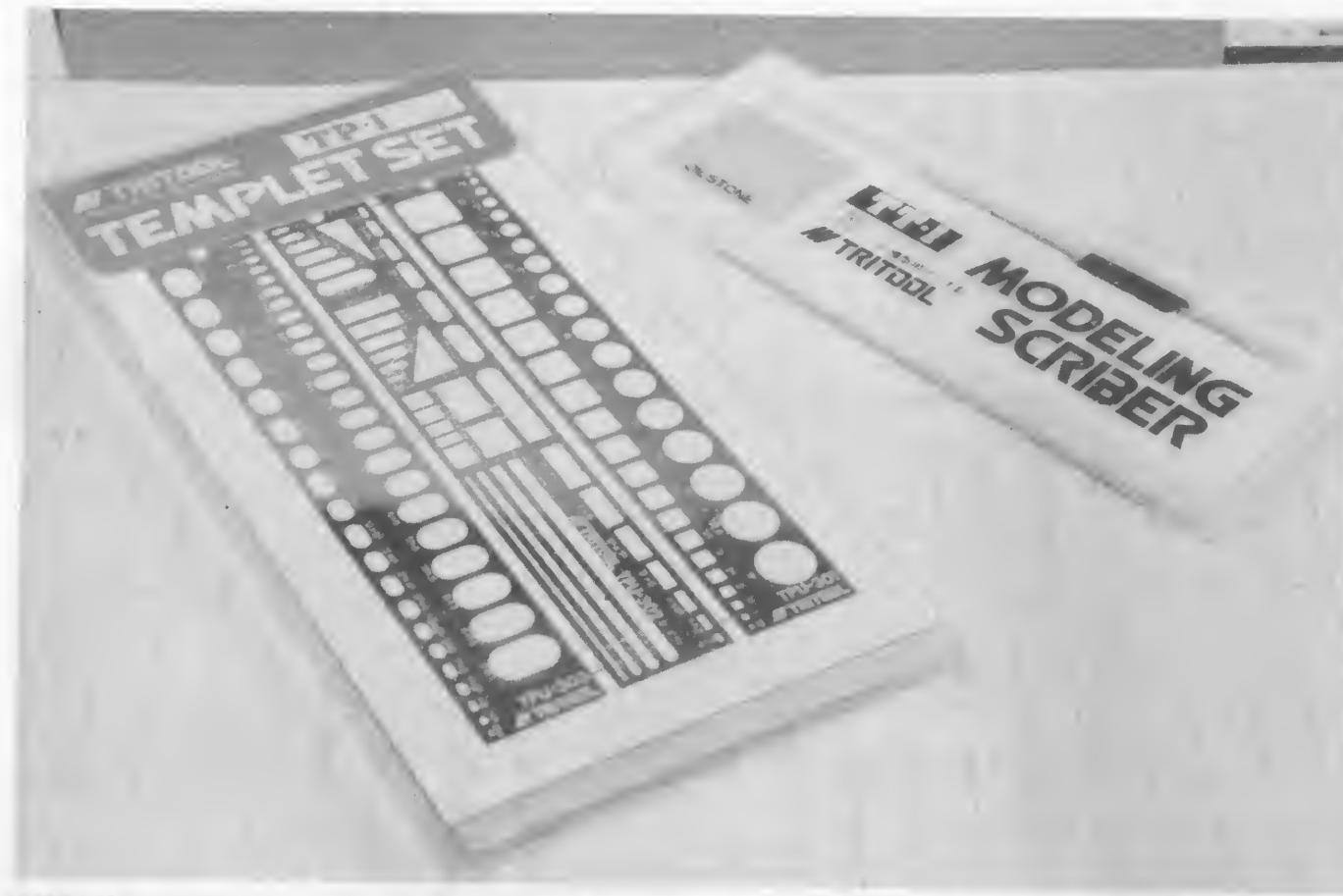
Nowadays I wonder how I managed without it before I bought my first one. It can be used wet or dry (I prefer the latter) and will help to reshape curved surfaces that the conventional methods tend to flatten. The expense will not hurt your pocket all that much and you will bless this invaluable tool in times to come.

### FINISHING

Many inexperienced modellers will naturally be entirely satisfied with getting rid of the most important joint lines in a model but those of us who wish to go just that bit further should be advised to apply a paint undercoat to the model of a mid-grey colour or some other neutral shade which will show up any discrepancies after it has dried. Failure to do this will result in the same scratch or imperfect cleaning up marks showing through the paint job when the model is complete. A quick check can be to hold the model up against the light and at a certain angle you will be able to see the worst of the marks but a pre-painting undercoat is the most revealing if you have the patience to wait until this has dried and carry out the cleaning up operation all over again in the imperfect parts that show up.

Filling and cleaning up the joint lines of any model show to the viewer just how careful you are in your work and you will have the satisfaction of knowing that the surface detail and the painting thereon are as perfect as your own abilities can accomplish.

In the first instance you may take away a lot of this surface detail but this is better than having a dark line along the top or underside of the fuselage where the joint has not been eliminated. I'll say more about the rescribing of surface detail at a later stage. Sufficient for the moment to encourage anyone who has not long been at plastic modelling to achieve a slightly higher standard and get started on the long hard trail of experience that leads to winning international competitions.



### MODEL PRODUCT REVIEW

Product: Scribing tool and templates

Manufacturer: TRIMASTER  
Price: Tool, 6.50; Templates, 5.50

Available from: Hannants, Trafalgar House, 29-31 Trafalgar Street, Lowestoft, Suffolk, NR32 3AT

THIS is the first of many such reviews that we shall be printing of new products that may help to improve the standard of modelling skills. Trimaster is a name to be reckoned with in the hobby these days. Their new 1:48 scale series of high-tech multi-media kits have no peer.

The first products that they had on the market were not in fact plastic kits

but these handy tools. If you are ever in the position of having rubbed down a join line on one of your latest models and then discovered that some of the scribed panel lines have vanished in the process, your resulting frustration can now be overcome with these new tools. The scribe comes equipped with its own oilstone so that you can maintain its sharp point. The two templates, TP-1 and TP-2, offer a variety of shapes and curves used in combination with each other can restore most lost detail. They can also help you to relocate any panels that may be moulded in incorrect positions.

They are of course an invaluable aid to the scratch builder as well. My favourite use is to sand down raised panel lines, which are my own pet peeve, and rescribe the same lines to an engraved state.

They are not cheap but are definitely a must for those who strive to improve their skills.

Jim Wood

This illustrates the TT-1 scribing tool and the TP-1 template, approximately actual size. Note the variety of panel shapes and sizes which can be used on models of practically any scale.



**PP AEROPARTS**  
MODEL ACCESSORIES

**AL733 Access Ladder for MIG-23 Flogger £1.85**  
This kit contains parts for one ladder used on all Flogger types, as well as on most other modern combat types. Full assembly instructions are included. Also many aerials, sensors and probes suitable for use on many Soviet aircraft types. Designed by Gabor Szekeres.

**AC709 Two F-4 Phantom In Flight Refuelling Probes £2.20**  
This kit contains parts for two IFR probes for this widely used aircraft. Etched and cast white metal parts and full assembly instructions are included.

**AC710 Soviet Aircraft Chocks, plus detail parts £1.85**  
This kit contains parts for three pairs of Soviet wheel chocks in differing styles, suitable for use with most MiG, Sukhoi and other Soviet types. Also included many detail parts including ILS, IFF, VHF aerials, probes and others. Designed by Gabor Szekeres.

**AVAILABLE FROM LEADING MODEL SHOPS NOW!**

**Tim Perry**  
**PP MODELS (HAMBROOK)**  
8 York Close, Stoke Gifford,  
Bristol UK BS12 8NU

**LATEST RELEASES FROM PP MODELS**

**International Plastic Modellers Society**  
are holding an  
**OPEN COMPETITION**  
on SUNDAY 13th NOV.  
AT THE I.P.M.S CHAMPIONSHIPS  
N.A.C STONELEIGH WARWICKSHIRE  
GENERAL CLASSES I.E. AIRCRAFT, SHIPS, A.F.Vs  
INCLUDING W.METAL FIGURES  
WITH JUNIORS IN EACH CLASS

Registration by 8th.OCT.  
entry forms available from

**FREE ENTRY**  
NO LIMIT TO  
NUMBER OF MODELS  
ENTERED!  
**R. WALLSGROVE**  
28 HEDLEY RD. ST. ALBANS  
HERTS. AL1 5JP  
Tel.: 0727/61683





# MAINTRACK MODELS

79 Queens Road, Hastings, East Sussex. TN34 1RL  
Telephone: 0424 437428

## ALADDIN'S CAVE IS AS CLOSE AS YOUR NEAREST POST BOX!

It is not everyone who is fortunate enough to have that 'really good' model shop just around the corner — or even within a day's march. But the full resources of our MAIL ORDER SERVICE are yours for the asking.

## MAIL ORDER IS EASY WITH MAINTRACK!

- \*Simply send a list of your requirements with Postal Order or Cheque to cover cost plus postage.
- \*Orders are dealt with straight away on our computerised system and sent by return where possible.
- \*Items out of stock are back ordered and sent (post free) when in stock — or credited as required.

**WE STOCK** — Scale Model plastic kits of AIRCRAFT, CARS, TRUCKS, TRAMS, MILITARY VEHICLES, TANKS, SHIPS, RAILWAY LOCOMOTIVES AND WAGONS, PLUS SCENIC ACCESSORIES.

**PLUS** — A full range of tools, adhesives, airbrushes, paint, etc.

## WHY NOT SEND FOR OUR MODEL AIRCRAFT KIT CATALOGUE?

Send £1 in stamps or PO (50p when ordered with kits).

**SPECIAL OFFERS** — look out for special offers and reduced price items EVERY MONTH in our advert.

**SPECIAL DEALS** — for organised modelling clubs or groups. Send in your order over £25 in value on headed notepaper (or tell us the name and details of your club) and we will send your order POST FREE (UK only) and include an additional kit of our choice.

**ALL CUSTOMERS** — automatically join our MAILING LIST and receive our periodic Newsletter with news and views on developments in the modelling world.

Here is a selection of our stock items. Those that we feel represent particularly good value for money are indicated as such.

### ITALERI 1:72nd Aircraft Good value

|                              |       |
|------------------------------|-------|
| Kfir C-2                     | £1.99 |
| MiG-37 Ferret E (Stealth)    | £1.99 |
| OA-4M Skyhawk (two seat)     | £1.99 |
| A-4M Skyhawk                 | £1.99 |
| F-21A Kfir (Lion)            | £1.99 |
| AH-64 Apache helicopter      | £1.99 |
| AH-1N Super Cobra helicopter | £1.99 |
| Super Estandard with Exocet  | £2.99 |
| F-18A Hornet                 | £3.25 |
| F-15E Strike Eagle           | £3.25 |
| Tornado GR.1                 | £3.25 |
| F-14A Tomcat                 | £3.99 |

### HOBBYCRAFT 1:72nd Aircraft Good value

|                             |       |
|-----------------------------|-------|
| Jaguar GR.1                 | £3.50 |
| Jaguar T.2 (two seater)     | £3.50 |
| F-4E Phantom                | £3.50 |
| F-4F Phantom                | £3.50 |
| UH-60A Blackhawk helicopter | £3.50 |
| SH-60B Seahawk helicopter   | £3.50 |
| F-15C Eagle                 | £3.50 |
| F-15D Eagle (two seater)    | £3.50 |

### MINICRAFT 1:72nd Aircraft Good value

|                 |       |
|-----------------|-------|
| F4F Wildcat     | £1.29 |
| Grumman Avenger | £1.99 |

### TOWER MODELS 1:76th Trams

|                                  |       |
|----------------------------------|-------|
| London E1 Type — closed platform | £3.50 |
| London E1 Type — open platform   | £3.50 |

### DAPOL 1:76th Locomotives

|                                 |       |
|---------------------------------|-------|
| 'Battle of Britain' 4-6-2       | £5.20 |
| 'Evening Star' 9F 2-10-0        | £5.20 |
| BR Railbus                      | £4.15 |
| LMS 'Pug' 0-4-0 Tank locomotive | £1.95 |

### HUMBROL 1:43rd Racing Cars Good value

|             |       |
|-------------|-------|
| Lotus-Honda | £1.95 |
| McLaren-TAG | £1.95 |

|                |       |
|----------------|-------|
| Williams-Honda | £1.95 |
| Porsche 928    | £1.95 |
| Porsche 962    | £1.95 |
| Lancia S4      | £1.95 |
| Lancia Beta    | £1.95 |

### ITALERI 1:720th Ships

|                     |       |
|---------------------|-------|
| USS Forrestal (NEW) | £4.30 |
|---------------------|-------|

### SPECIAL OFFERS THIS MONTH!

|                                |       |       |
|--------------------------------|-------|-------|
| Italeri B-66 Destroyer 1:72nd  | £4.99 | £3.99 |
| Monogram F-4J Phantom 1:72nd   | £5.99 | £4.99 |
| Monogram F-4C/D Phantom 1:72nd | £5.99 | £4.99 |
| Hasegawa F-18 Hornet 1:72nd    | £5.69 | 4.69  |
| Hasegawa OA-4M Skyhawk 1:72nd  | £4.49 | 3.49  |
| Polish RWD-14 1:72nd           | £1.50 | £0.75 |
| Polish PZL-37 Bomber 1:72nd    | £3.45 | £1.50 |
| Airfix 00 Meat Wagon           | £1.65 |       |
| Airfix 00 Cattle Wagon         | £1.95 |       |
| Airfix 00 Platform Fittings    | £1.65 |       |
| Keil Kraft 'B' type Bus        | £1.99 | £1.50 |

### ESCI 1:72nd Armour

|                      |       |
|----------------------|-------|
| Sturmpanzer Brummbär | £2.50 |
| M60 Blazer           | £2.75 |
| JagdPanzer IV        | £2.75 |

### POSTAGE — UK

|              |                               |
|--------------|-------------------------------|
| Up to £5     | £1.00                         |
| Up to £17.50 | £2.00                         |
| Up to £25.00 | £2.50                         |
| Over £35.00  | POST FREE<br>25p any quantity |

**SHOP OPEN:** Monday-Saturday 09.30-17.30 (lunch 1-2) early closing Wednesdays.

**POSTAGE OVERSEAS** (incl) Eire — Deduct 13% VAT element (except decals) then add 35% to NETT price. Alternatively at cost by Credit Card or send IRCs for Proforma Invoice.

**BARCALYCARD/VISA; DINERS CARD; ACCESS/**  
**MASTERCARD accepted.**



### MATRIX AVIATION

**MATRIX MODEL MAKERS BOARDS**, the simple answer to neater modelling: DE-LUXE MODEL BOARD Tray 50 x 75 cm with transpex sheet to hold plans, plus back rack to hold 44 Humbrol size tins, ideal for all plastic, vacuform, or white metal modelling, enthusiastically reviewed by the modelling press in 1987. MINI MODEL board with a two rail back rack to hold 20 Humbrol tins, tray size 30 x 40 cm.

Cost now: De-Luxe £24.75. Mini £18.85 both incl p&p.

**MODEL DISPLAY PLINTHS** in 12 mm thickness in standard sizes from 6 x 6 cm up to 30 x 42 cm. All edges machined for professional look and available in black or light grey plastic splatter finish. Our best sellers are designed to fit the Verlinden card airfield sections (all available from us at £1.40 each); single sheet plinth 30 x 22 cm £5.20 two sheet plinth 30 x 42 cm £6.50 (plus p&p 15 per cent). We can also supply unpainted plinths in any size on request and thicker plinths suitable for mounting perspex cases on. We will also supply and cut perspex to size for those people wishing to build their own display cases. Send SAE for details or £1.50 for 6 x 6 cm sample, black with grey underneath (may be exchanged for a more practical size with your first order).

**MATRIX AVIATION (GILES CAUGHEY)**, 5 Great Furlong, Bishopsteignton, Devon TQ14 9TU. Telephone: Teignmouth (06267) 6466 (24 hrs)  
PLEASE QUOTE AIRFIX WHEN REPLYING

SORRY NO CREDIT CARDS YET

### esoteric models

direct from the source

#### X-72 Series

Macchi M16.....£5.00  
Hawker Nimrod.....£5.00

#### Esoteric 1:72nd Scale

NAFDEC One: (US national insignia, naval squadron markings).....£2.50  
NAFDEC Two: (Instrument panels plus seatbelts for 15x USN types).....£1.50

#### ESOTERIC MODELS

Hanger, 3a Main Road,  
East Hagbourne, Didcot,  
Oxon OX11 9LJ England

### 'HALLAM-VAC'

1:72nd scale vacuformed kits with metal parts and clear transparencies  
No.501 WESTLAND WELKIN F.Mk.1 £5.60  
No.502 BRISTOL BRIGAND B.Mk.1 £6.95  
No.503 SA TWIN PIONEER CC.Mk.1 £8.95  
No.504 AUSTER AOP.9 £3.75

Please add 10 per cent p&p UK, 20 per cent overseas surface and 40 per cent Airmail.

### PLASTIC KIT CONSTRUCTOR MAGAZINE FOR AIRCRAFT MODELLERS

Edited by Ron Firth, this quarterly magazine is packed with kit and product reviews and listings, scale drawings, reference material, readers letters etc.

UK subscription (four issues) £10.00, Europe and overseas £13.00

Back issues available

Special A4 size PKC Binders £5.00 inc p&p (£5.50 overseas)  
A5 size PKC Binders £4.75 inc p&p (£5.25 overseas)  
and special for subscribers only

PILATUS P2 Vacuform 1:72nd kit £5.00 inc p&p (£5.50 overseas) and

PAMAG (Publications) Ltd, FREEPOST,  
22 Slayleigh Avenue, Sheffield S10 1BQ, England  
\*\*\*Access. MasterCard and EuroCard accepted\*\*\*

Address for USA/Canada subscriptions:  
Wise Owl Worldwide Publications, 4314 West 238th Street, Torrance, CA 90505 USA

### COLLECTAKIT

Buying & Selling All Obsolete Plastic Kits  
Please write to: 35 Chepel Ave, Addiscombe, Surrey, KT15 1UH, or Telephone 0932-840766 (Evenings only - We are not a shop) Our book 'The Enthusiast's Guide to Airfix Models' is available from us £1 post paid UK (£1 Europe or £5 Air Mail)  
No Gimmicks or Smart Ads Just The Kit Enthusiast's Enthusiast.

FOUNDER MEMBER OF PLASTICS HISTORICAL SOCIETY

WE ACCEPT BARCLAYCARD/ACCESS/DINERS/ AMERICAN EXPRESS. TELEPHONE ORDERS WELCOME. ALL MAIL ORDER WITHIN THE UK SENT POST FREE.

Can't get into the shop? Give us a call on our 24 hour answering service to place your order and to receive a FREE COPY of our catalogue.

AV2+ Wheel inserts 1:72nd for wider wheels £1.95  
AV3+ Wheel inserts 1:48th for wider wheels £1.95

AV4 1:72nd Instrument faces, bezels and planking. Includes photo-sheet for instrument dials £3.75

AV5 1:48th Instruments (as AV4) £4.50

GP1 Large Diamond mesh £4.20  
GP2 Small Diamond mesh



## MODELDECAL DECALS 1:72nd SCALE

2 F-4 Phantoms, late 1960s: VMFA-531 USMC, 497 TFS USAF, 767 Sqn. Royal Navy. 9 US Navy: A-1J Skyraider VA-176 1966, A-7E Corsair VA-195 1970, SH-3A Sea King 1967. 13 T-33A Luftwaffe 1968, Fiat G-91R/3 Luftwaffe 1969, F-104G Starfighter MFG1 1970. 14 RAF: Sobre F.1 234 Sqn. 1954, Vampire FB.5 12 Sqn. 1951, Chipmunk T.10 2 FTS 1971. 15 A-7E Corsair VA-113 'Stingers' USS Ranger USN 1970, AV-8A Harrier VMA-513 USMC 1971-72. 2 F-4 Phantom VF-111 USN 1971. 17 T-33 4th Wing RCAF 1967, F-35 Draken 725 Sqn. Danish Air Force 1971. Mosquito FB.6 4 Sqn. RAF 1949, A-4 Skyhawk 500 Sqn. Royal Australian Navy 1969. 18 Royal Navy: Gannet Mk.4(COD) Airc Royal 1965, Sea Hawk F.1 898 Sqn. 1954, Wessex Mk.1 SAR Flight Ark Royal 1970, Avenger Mk.6 831 Sqn. 1958. 25 RAF: Lightning F.2A 19 Sqn. 1974, Canberra BII(B) 16 Sqn. 1972, Hunter FGA.9 45 Sqn. 1974, Harvard T.2B 500 Sqn. 1952. 26 RAF: Buccaneer S.2B 15 Sqn. 1974, Hunter FGA.9 58 Sqn. 1974, Canberra B.2 10 Sqn. 1956, Gazelle HT.3 CFS 1973, Royal Navy Gazelle HT.2 709 Sqn. 1974. 28 RAF: Canberra E.15 98 Sqn. 1974, Lightning F.3 29 Sqn. 1971, Jet Provost T.5 3 FTS 'The Swords' 1974, Royal Navy Hunter T.8 764 Sqn. 1964. 30 RAF: Phantom FGR.2 29 Sqn. 1975, Javelin FAW.8 41 Sqn. or 85 Sqn. 1963, Jaguar GR.1 17 Sqn. 1975, Jaguar T.2 17 Sqn. 1975, Dutch Navy Tracker 320 Sqn. 1974. 33 British a/c post-war serial letters (black): 16 in., 18 in., 20 in., 24 in. heights. Examples of types using these sizes: Meteor, Sobre, Jaguar, Lightning, Harrier. 34 British a/c post-war serial letters (black): 30 in., 36 in., 48 in. heights. Examples of types using these sizes: Canberra, Phantom, Buccaneer, Gannet. 35 British a/c post-war serial numerals (black): to be used with sets 33 and 34. 36A British a/c post-war serial letters, numerals and titles (black): 4, 8, 12 inch heights. Titles in varying sizes, include 'Royal Navy', 'Royal Air Force', 'Army' and 'Royal Marines'. 37 RAF: Phantom FGR.2 56 Sqn. 1976 or 2 Sqn. 1971, Sabre F.1 20 Sqn. 1955, USAF F-111E 20th TFW 1976 in full Bi-Centennial markings. L'Armee de l'Air Mirage IIIE E.C.2/4 1976, L'Armee de l'Air CM170 Magister with several options included. 39 WW2 British roundels and fin flashes, types A and A1. Type A diameters: 25, 30, 35, 40, 42, 45 inches. Type A1 diameters: 20, 28, 30, 34, 42, 45, 45 1/2 inches. Fin flash widths: 15, 18, 21 inches. 40 WW2 British roundels and fin flashes, types A, A1, C, C1. Type A diameters: 45, 50 inches. Type A1 diameters: 49, 56 inches. Type C diameters: 40, 63 inches. Type C1 diameter 48 inches. Type A fin flash widths: 9, 12, 24, 27, 36 inches. Type C width: 24 inches. 41 WW2 British roundels and fin flashes, types C and C1. Type C diameters: 16, 32, 48, 50, 54, 56 inches. Type C1 diameters: 18, 36 inches. Fin flash widths: 12, 24, 36 inches. 42 WW2 British roundels, Type B. Diameters: 15, 20, 30, 32, 35, 40, 44, 48, 49, 50, 54, 56, 59, 63, 66 1/2 inches. Sets 39-42 give a comprehensive selection of standard styles and sizes of national markings as carried by British military aircraft of small to medium size during the 1938-47 period. Total content is 296 roundels and 60 inches (app) of assorted widths flashing. 43 RAF: Jaguar GR.1 41 Sqn. 1977, Jaguar F.2 10 Sqn. 1977, JASDF F-4E/J Phantom 301 or 302 Sqn. L'Armee de l'Air F-84F Thunderstreak E.C.1/19 1961, Dutch A/F F/T/F-RF-104G Starfighter, choice from either 306 Sqn. 311 Sqn. V1b/KL or 'Dutch Masters'. 45 IAT 1977(1). RAF: Lightning F.3 or F.6 11 Sqn., Hawk T.1 CFS, Arme de l'Air Mirage F.1c E.C.1/12. Norwegian A/F F-5A 'Jokers' 336 Sqn., Australian Navy Sea King HAS.50 817 Sqn. 46 IAT 1977(2). RAF: Harrier GR.3 233 OCU, Jaguar GR.1 226 OCU. Belgian A/F Mirage 5BA 8 Sqn. 3rd Wing, L'Armee de l'Air Super Mystere B.2 E.C.1/12 plus a camouflaged alternative, Luftwaffe F-4F Phantom '37+69' or '38+57' Jabo 36. 47 British military a/c Type D roundels and fin flashes, 1947 to date. Roundel diameters: 9, 12, 18, 24, 27, 30, 33, 36, 48, 54, 84 inches. Fin flash widths: 12, 18, 24, 30, 36 inches. Total content is 95 roundels and 21 inches (app) of fin flashing. 48 British military a/c post-war serial letters, numerals and titles (white), in 4, 8, 12 inch heights. Titles in varying sizes as described in set number 36. 49 Royal Navy: Sea King HAS.1 choice between 824 Sqn. 1970, 819 Sqn. 1977, 706 Sqn. 1978. HAS.2 choice between 824 Sqn. 1977, 826 Sqn. 1978 (complete markings for 1 a/c only). USN F-14A Tomcat VF-14 1976. CAF CF-104 Starfighter 429 (Tiger) Sqn. 1977, L'Armee de l'Air F-84G Thunderjet E.C.2/1 1953 or F-84E Thunderjet E.C.1/3 1953. 50 RAF: Hawk T.1 234 Sqn. 1978, Jaguar GR.3 1 Sqn. 1977, Norwegian A/F F-5A 'Jokers' 336 Sqn. 1977 as at IAT. L'Armee de l'Air SA330B Puma 1976-77 choice from three machines. 51 RAF WW2 (post August 1941) Sky squadron codes letters, in 18, 24, 30 inch heights, and a variety of styles, total of 286 letters. 53 RAF 1938-41 Medium Sea Grey squadron codes letters, 30 and 48 inch heights. 54 British military a/c red/blue roundels and fin flashing, 1970 to date. Roundel diameters: 8, 12, 18, 25, 27, 30, 36, 48, 54, 84 inches. Fin flash widths: 12, 18, 24, 36 inches. Total content is 82 roundels and 26 inches (app) of fin flashing. 55 IAT 1979. RAF: Phantom FGR.2 XV242 in Alcock and Brown commemorative flight scheme. Lightning F.3 Lightning Training Flight, Hawk T.1 163 Sqn. TWU. 56 RAF Lightning F.3 56 Sqn. 1965. Royal Navy: W. Lynx HAS.2 702 Sqn. 1978-80, choice from six options. Attacker FB.2 728 Sqn. or 1831 Sqn. 1955. L'Armee de l'Air T-33A 1976. 57 Royal Navy: Buccaneer S.2 700B Sqn. 1965 or 801 Sqn. 1965 or 800 Sqn. 1971. Sea Hawk FB.3 897 Sqn. 1956 or FGA.6 810 Sqn. 1956. RAF Sea King HAR.3 202 Sqn. 1978-9. L'Armee de l'Air Alpha Jet 314 Gp. E.1/1, CEAM. 1978-9. 58 British military a/c post-war serial letters (white): 16, 18, 20, 24 inch heights. 59 British military a/c post-war serial letters (white): 30, 36, 48 inch heights. 60 British military a/c post-war serial numbers (white) to be used with sets 58 and 59. 61 British military a/c post-war serial letters and numerals (white), in current and earlier square styles, all 48 inches height. 62 Post-war French roundels and anchors: 240-900 mm. 63 Post-war French Air Force Sqn. Codes (black), in various styles: 240-530 mm. 64 RAF: Phantom F.G.1 43 Sqn. 1981 or FGR.2 56 Sqn. 1981 or 19 Sqn. 1980 or 23 Sqn. 1981 all these options with three-tone grey finish. Phantom FGR.2 92 Sqn. 1977 with grey/green camouflage. Hawk T.1 151 Sqn. 2 TWU 1981, Tornado GR.1 11 TTTE 1981. 65 RAF: Phantom F.G.1 111 Sqn. 1980 or FGR.2's 92 Sqn. 1981 or 64 Sqn./228 OCU 1981 or 29 Sqn. 1981 all these options with three-tone grey finish. Phantom FGR.2 23 Sqn. 1976 or 19 Sqn. 1977 both with grey/green camouflage. Lightning F.6 5 Sqn. 1981 with two-tone grey finish. Royal Navy Sea Harrier FRS.1 899 Sqn. 1980. 66 Royal Navy (Falklands) April-Sept 1982: FRS.1 Sea Harriers 800, 801, 899 Sqns. all finished in E.D.S. Grey schemes. One complete a/c can be modelled from a 14 a/c selection. Sea King HC.4 846 Sqn. 1980-82 or as on return from Falklands. RAF Lightning F.6 5 Sqn. or 11 Sqn. 1982 both with three-tone grey finish. Additional decals provided for a 5 Sqn. grey/green Lightning F.6 as an alternative to the 11 Sqn. a/c on set 45. 67 Royal Navy (Falklands) April-Sept 1982: FRS.1 Sea Harriers 809, 899 Sqns. all finished in Medium Grey schemes. One complete a/c can be modelled from an 11 a/c selection. RAF: Tornado GR.1 9 Sqn. or TWU 1982. Puma HC.1 33 Sqn. 1980 or 230 Sqn. or 240 OCU 1982. 68 L'Armee de l'Air: MD450 Ouragan 2nd/4th Escadrilles de Chasse 4 ATAF 1953-55. An a/c from any one of eight units can be modelled. T-28A Fennec (Trojan) 1960, any one of five units. Alouette III F-MJBP Detachment d'Helicopteres de la Gendarmerie 1981. 69 L'Armee de l'Air: F-100D/F Super Sabres 3rd and 11th Escadrilles 1960-78, 7 units represented. Mirage F.1B/C 5th, 10th, 12th, 30th Escadrilles 1976-82. Aeronavale Vought F-8E(FN) Crusader 12th, 14th Flotille 1964-83. 70 RAF: Vulcan B.2/B.2A, all a/c finished in anti-flash white: 9 Sqn. 83 Sqn. 12 Sqn. 35 Sqn. all in 1963, 27 Sqn. 1962 230 OCU 1963. Tornado GR.1 617 Sqn. or ASF 1982-3. Lightning T.4 74 Sqn. 1965. Royal Navy Sea Harrier FRS.1's 800, 801, 899 Sqns. represented 1982-3. 71 RAF: Vulcan B.2/B.2A, all a/c camouflaged: XM597 101 Sqn. and 'Black Buck' ops, 1982-3, 50 Sqn. 1982-3, 35 Sqn. 1976, 617 Sqn. 1979, 27 Sqn. 1977, 35 Sqn. 1977, 230 OCU 1980, 9 Sqn. Sea King HAR.3 202 Sqn. 1982. Royal Navy Sea Harrier FRS.1 809 Sqn. 1982. SAE with all enquiries please.

Modeltoys

246 Kingston Road, Portsmouth,  
Hants PO2 7LR  
Telephone: Portsmouth (0705) 661469

KITS, DECALS, BOOKS,  
ACCESSORIES, ETC.

SHOP HOURS  
09.30-12.30  
13.30-17.15  
Mon.-Sat.  
Closed Weds.

IPMS SILVER JUBILEE 1988  
NATIONAL CHAMPIONSHIPS AND  
MODELLING WEEKEND,  
12-13 NOVEMBER  
National Agricultural Centre,  
Stoneleigh, Warwickshire  
SEE US THERE

SEPTEMBER 1988

# TRIMASTER

NEW!



## Heinkel He.162A-2

MA3 He.162 SALAMANDER £24.95

The He.162A-2 'Volksjager', usually called by its development project code name 'Salamander', is a World War 2 German jet fighter of unique design carrying a BMW003E turbojet engine on the back. The kit includes many detailed parts to reproduce a replica of this classic jet engine. The engine body is by plastic parts, while the accessories are white metal and photo-etched stainless parts. Photo-etched and pressed metal hinges are provided for the engine cowls to reveal this engine. Like the actual aircraft carrying a 61 kg ballast in the nose, the kit is also provided with a formed metal ballast fitting inside the nose cone. The kit decal includes sets of markings including one for the aircraft flown by Oberleutnant Emil Demuth.

Following the kit, a separate decal sheet for the He.162, the first sheet of TRIDECAL Series, is scheduled to be released.

The decal, sized as large as 250 mm by 180 mm, silk screen printed, covers a total of 14 different markings of the He.162 including one for the aircraft of Leutnant Rudolf Schmitt who shot down a Typhoon in the final moment of the war, 48-2001.

MA1 FOCKE WULF FW.180D-9 £24.95



MA2 FOCKE WULF FW.190D-12 Very limited edition £24.95



Trimaster kits are 1:48th Scale and injection moulded. They include white metal parts, photo etched parts and decals. They are all beautifully packaged in full colour boxes and shrink wrapped. We are the UK distributors. Trade enquiries welcome.

ALL TRIMASTER PRODUCTS ARE DESIGNED AND PRODUCED BY ENTHUSIASTS FOR ENTHUSIASTS

HANNANTS

TRIMASTER LTD, MORITA BUILDING 17-16 1-CHOME, OKADEYAMA, FUJIEDA-CITY SHIZUOKA 426, JAPAN

Trafalgar House, 29-31 Trafalgar Street,  
Lowestoft, Suffolk NR32 3AT  
Telephone Lowestoft (0502) 565688 and 517444



# 1988 Releases



## MILITARY AIRCRAFT (1:72)

- 01054 De Havilland Chipmunk
- 01059 Westland Aérospatiale SA 341 Gazelle
- 02012 Dassault Mirage III C
- 02013 Ilyushin IL-2M3 Stormovik
- 02080 BAC Lightning F.3
- 03054 Westland Aérospatiale Lynx HAS3
- 03055 Hawker Siddeley Buccaneer S.2B
- 03057 Northrop RF-5E 'Tiger Eye'
- 04020 Dornier Do 217E/J
- 05023 Mil Mi-24 Hind A
- 05024 Republic F105G Thunderchief "Wild Weasel"
- 05102 British Aerospace Harrier GR.3 (1:48)
- 06012 Fairchild A10 Thunderbolt II + Maverick missiles

## WARSHIPS (1:600)

- 04202 HMS Hood
- 04203 HMS Nelson
- 04206 Scharnhorst
- 04211 Graf Spee

## VINTAGE AIRCRAFT (1:72) Special Edition

- 01080 Bristol F2B Fighter
- 01081 Spad SVII
- 01082 Sopwith Pup

## WWII AIRCRAFT OF THE ACES (1:72) Special Edition

- 02081 Supermarine Spitfire Mk IX
- 02082 Hawker Hurricane Mk I
- 02083 North American P-51B Mustang
- 02084 Republic P-47D Thunderbolt
- 02085 Focke-Wulf Fw190A
- 02086 Messerschmitt Bf109E

## MODERN AIRLINERS (1:144) Special Edition

- 06180 McDonnell-Douglas DC10
- 06181 BAC Aérospatiale Concorde

## CLASSIC SHIPS Special Edition

- 09251 Royal Sovereign (1:168)
- 09255 Discovery (1:144)
- 09257 St. Louis (1:144)
- 09258 Golden Hind (1:72)

## HISTORIC CARS (1:32) Special Edition

- 02441 Alfa Romeo 1933
- 02442 De Dietrich 1902
- 02443 Ford Model 'T' 1912
- 02447 Rolls Royce 1905
- 02451 Bugatti 35B
- 02452 MG Magnette 1933

Scale of kits shown in brackets.



Humbrol Ltd., Marfleet, Hull, North Humberside HU9 5NE England.  
Telephone (0482) 701191 Telefax (0482) 712908 (GROUP 3)  
Telex 592534

A HUMBROL PRODUCT